ANNUAL PLAN

1988-89

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1988-89

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PLANNING COMMISSION

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CHAPTER 1

ANNUAL PLAN 1988-89 AND REVIEW OF PERFORMANCE IN 1987-88

The Annual Plan for 1988-89 which is the fourth year of the Seventh Five Year Plan has been formulated in the light of the objectives, policies and programmes thrust indicated in the Seventh Five Year Plan and the performance of the economy in 1987-88 which witnessed one of the severest droughts of the century. While seeking to promote balanced growth, it lays emphasis on implementation of area specific and beneficiary oriented anti-poverty programmes in order to generate additional employment and incomes for the weaker sections of the society. Stress has been laid on improvement in productivity through better capacity utilisation, greater efficiency in the use of resources, upgradation of technology and timely completion of projects. Particular emphasis has been laid on completion of ongoing projects in an advanced stage as well as those which can be completed quickly in order to realize the benefits from the investments made.

Review of the Economy in 1987-88

1.2 The economic performance during 1987-88 has been mainly dominated by the coutrywide drought which had caused a temporary set-back to the momentum of growth. While the immediate impact of the drought was felt in agriculture resulting in lower production, some effects also got transmitted to other sectors of the economy, although after a time lag. However, as a result of the inbuilt resilience in the economy as well as timely measures taken by the Government, the impact of drought was contained to a large extent and the economy registered a positive rate of growth during the current year. Further, as a result of a number of measures, the balance of payment position has shown some perceptible improvement although it still continues to be under strain.

1.3 In the wake of the four years of successive poor monsoons, the last being the worst of these, the production of foodgrains in 1987-88 declined by 4.4 per cent. The redeeming feature was that the industrial sector maintained its upward trend and registered a growth rate of 7.7 per cent. Infrastructural sectors have also performed well particularly thermal electricity generation, railway movement and coal production. The rate of growth in Gross Domestic Product is estimated to have been between 2.5 to 3 per cent during 1987-88.

Agriculture

1.4 As already mentioned, the first three years of the Seventh Plan were the drought years, particularly 1987-88 which witnessed one of the severest droughts of the century due to acute failure of monsoons. 267 districts in 15 States and six UTs were severely affected. Out of 35 meteorological sub-divisions, 21 received deficient/scanty rains. As a consequence agricultural production during the Kharif was adversely affected particularly groundnut, rice, millets and maize. There was shrinkage in area under rice due to drought in the States of UP, Madhya Pradesh and Orissa and due to prolonged floods in Assam, Bihar and West Bengal. Shrinkage of area was also reported in the southern region also. Weather situation, however, showed some improvement during the Rabi season as a result of which some increase is anticipated in Rabi which has, to some extent, off-set the decline in Kharif production. Production of rice is estimated at 53.6 million tonnes which is about seven million tonnes lower than the production in 1986-87. However, production of coarse grains, mostly in rainfed conditions is estimated to be at the previous year's level or marginally higher. Wheat production is expected to maintain the momentum of growth and the size of the crop is placed at 46 million tonnes. Total production of foodgrains during 1987-88 is estimated at 137.7 million tonnes.

1.5 As for commercial crops, production of oil seeds is estimated in the range of 11.5 to 12.5 million tonnes while the production of sugarcane would be more or less at the last years level of 180 million tonnes, following the three years of stable sugar policy environment. Among the fibres, production of jute and mesta suffered a severe set-back while the production of cotton would be substantially higher than the preceding year at 8.5 million bales.

1.6 The fact that foodgrains production during 1987-88 is only 6.4 million tonnes less than the year earlier, notwithstanding the shock of monsoon failure on a wide scale, should be taken as a positive proof of the growing strength and resilience acquired by the Indian agriculture despite extremely hostile weather conditions. The position to a large extent was retrieved through various drought management measures, diversion of electricity from industrial and domestic use to agriculture, optimum utilization of the irrigation facilities already created and increased emphasis on the production of Rabi crops. In order to boost and impart stability to agricultural production, special emphasis has been laid to the extension of areas under assured irrigation, greater use of ground water resources particularly in rainfed areas and optimal water use in dryland agriculture. The irrigation potential has increased to 73.96 million hectares while the utilization has gone up to 66.36 million hectares during 1987-88.

As a result of the drought the procurement of rice in 1987-88 was 6.83 million tonnes as against 9.21 million tonnes in 1986-87 while that of wheat was 7.88 million tonnes as compared to 10.54 million tonnes in 1986-87.

1.7 Large food stocks built up, over 23 million tonnes by June 1987, made it possible to maintain adequate supplies of foodgrains through the public distribution system especially in drought affected areas, the relief programmes and other employment programmes. The off-take of foodgrains from the public distribution system has increased significantly during the last year. Requests for additional allocation of rice, wheat, sugar and edible oil were received from several states. Availability and distribution has been carefully planned and monitored. The Government have made additional special allocation of about five million tonnes of rice through public distribution system during August-October 1987. Additional quantities of rice and wheat were also allocated for drought/calamities relief operations in Madhya Pradesh, Gujarat, Rajasthan, Jammu and Kashmir and Himachal Pradesh.

1.8 Total distribution of foodgrains including distribution under the National Rural Employment Programmes, Rural Landless Employment Guarantee Programme and relief operations was the highest at 2.73 million tonnes during 1987-88. With a view to containing the prices of wheat and rice within reasonable limits, imports of 2.0 million tonnes of wheat and 0.7 million tonnes of rice have already been resorted to and the Government have announced that the additional imports will be made if the situation so warrants. The Government also resorted to larger imports of edible oils and the allocation to the State governments for public distribution system was made on a monthly basis taking into account demand and supply position.

Infrastructure

1.9 Despite the drought and its lagged effects, substantial increases were registered in infrastructure of energy, transport and coal. Production of coal increased to 179.78 million tonnes in 1987-88 from 165.79 million tonnes in 1986-87. Crude oil production hovered around 30 million tonnes. The throughput of petroleum products increased to 47.72 million tonnes in 1987-88 as compared to 45.69 million tonnes in 1986-87. Power generation increased by 7.6 per cent Thermal power including nuclear power showed an increase of 15.4 per cent while in the case of hydro there was a shortfall due to low level of water, in the reservoirs mainly due to poor inflow in the most of the storage based hydel stations as a result of widespread drought. An additional capacity of 4981 MW was installed and the thermal plant load factor improved to 56.5 per cent. Besides other measures like better plant management and streaking in of additional generating capacity also helped in improving the power situation.

1.10 For the second year in succession the freight loading in Indian railways registered a significant increase. In fact the target for the freight traffic in 1987-88 was revised upward and the railways carried 289.0 million tonnes of revenue earning traffic in 1987-88 as compared to 277.7 million tonnes in 1986-87. This implied an increase of 11.3 million tonnes in revenue earning freight traffic over the previous year. In order to improve the efficiency and speed, the railways continued their programme of replacement of over-age assets and modernisation of operations in addition to improvement in productivity. Cargo handled at major ports during 1987-88 recorded a substantial increase of 7.6 per cent over the corresponding period of 1986-87. The telecommunication sector has shown a considerable improvement in its performance in terms of growth, both of the infrastructure and of the traffic during 1987-88. There was, however, a slight set back in the production of telephone instruments by the Indian Telephone Industries. There was a significant thrust towards the extension of telephone service to rural areas.

Industries

1.11 The immediate shock of monsoon failure is felt in industry after a lag through one or more of the three major routes viz., shortage of raw materials for agro-based industries, the reduced rural demand for industrial products and shift in the share of consumer demand away from industrial products. However, the timely measures initiated by the Government in 1987-88 helped in removing the constraints on industrial growth and accelerating the development of the industries in the country; and notwithstandnig the worst drought, the industrial production registered a growth rate of 7.7 per cent. Further, some structural changes have occurred over the years which have made the industrial economy less sensitive to fluctuations in agriculture, Thus, the share of agro-based industries in the value added in manufacturing sector has come down from around 44 per cent in 1960-61 to less than 34 per cent in 1980-81. Further there has been a significant shift away from agricultural inputs to manufacturing inputs. These structural changes have led to some weakening of backward and forward linkages between industry and agriculture. The process is also reinforced by long-term structural changes in the power sector. The share of thermal sources in the total power generation has gone up from about 54 per cent in 1960-61 to about 70 per cent at present. Further, the government also adopted a series of measures so that the resources allocated for drought relief are not diverted from public sector investment expenditure. Thus while the adverse effect of drought on industrial production could not be avoided altogether its impact was considerably sub-dued in contrast to earlier drought years.

1.12 In 1987-88 a package of measures were initiated to revitalize the machine-building industries, During 1988-89 certain measures were announced which will help in revitalising industries such as cement, paper and textiles. These measures are expected to stimulate demand, lower costs and improve efficiency.

1.13 The capital market is an important source for mobilisation of savings for industry and the government have taken several steps to strengthen it. In 1987-88 a decision was taken to set up a separate board for the regulation and development of stock exchanges and the board is expected to become operational soon. Measures have been taken to set up Mutual Funds to lay down ground rules for orderly operation of the stock exchanges, to improve their infrastructure, facilitate share transfers and enforce better discipline on entering the market.

1.14 A technology upgradation scheme under which fiscal relief was provided in respect of import of specified items of capital equipment required for manufacture of industry was announced in August 1987. To promote domestic production of such machinery a custom duty on selected raw material needed for their production was reduced. This substantially helped to boost the production of capital and producer goods.

1.15 According to the revised Index of Industrial Production the growth rate achieved by the manufacturing sector as a whole recorded a growth rate of 7.7 per cent during 1986-87. The higher rate of industrial growth was also maintained during the first eight months of 1987-88 but due to the lagged effect of drought the growth rate slightly came down and for the year as a whole it is expected to be over 8.5 per cent. The process of industrial policy reform which gained momentum after 1984 have generally emphasized cost efficiency and has aimed at progressive shift from discretionary quantitative controls to non-discretionary fiscal controls. The attempt is to gradually emphasize cost efficiency in Indian industry through greater domestic production. The changes are being introduced cautiously to ensure that competitive pressures bring in cost efficiency without risking any sudden shocks. The important reform in the area of Industrial Policy in the recent past have emphasised relaxing of licencing constraints on entering priority areas, capacity re-endorsement, broad banding and cost efficiency including prescribing minimum scales of production. The impact of these policy initiatives is directed to some extent in acceleration of industrial growth and the greater impact of these measures is likely to be felt in the coming years when investment intentions fructify and yield increase in production. However, due to the impact of drought there was a decline in the fresh industrial approvals issued by the Secretariat for Industrial Approvals (SIA) comprising grants of letters of intent and registrations for setting up of fresh capacity. The assistance sanctioned by the All India Financial Institutions increased from Rs. 6598 crores in 1985-86 to Rs. 7979 crores in 1986-87 while disbursals increased from Rs. 4933 crores to Rs. 5627 crores during the same period. The basic and capital goods which account for the combined weight of 55.8 per cent showed a higher growth rate of about 9 per cent during 1987-88. However, there was a considerable deceleration in the intermediate and consumer goods industries which grew up about 4.5 per cent in 1987-88.

1.16 The industrial sickness has emerged as a serious problem affecting the small, medium and large units. 147,740 units have been found to be sick of which 17,708 have been found to be potentially viable. In terms of the Sick Industrial Companies (Special Provision) Act 1985, the Government of India have set up the Board for Industrial and Financial Reconstruction (BIFR) in January 1987 (which has become operative since May 15, 1987) for determining the preventive, ameliorative, remedial and other measures which are required to be taken in respect of sick industrial companies and for expeditious enforcement of the measures determined. Companies (other than Government companies and those specifically exempted under the Act) whose net-worth is eroded fully, fall under the purview of this legislation. For the purpose of this legislation, a sick industrial company has been defined as follows : "An industrial company (being a company registered for not less than seven years) which has at the end of any financial year accumulated losses equal to or exceeding its entire net-worth and has also suffered cash losses in such financial year and the financial year immediately preceding such financial year".

The BIFR has been given wide-ranging powers in respect of approval of rehabilitation packages for sick industrial companies including their restructuring and revival. In cases where sickness is confirmed, BIFR will determine the course of action to be followed with regard to the company.

1.17 The village and small industries (VSI sector) which constitute an important sector of the economy in respect of production, generation of employment opportunities and contribution of foreign exchange continued to register significant growth. The production of VSI sector is estimated to have gone up from Rs. 82456 crores in 1986-87 to Rs. 85586 crores in 1987-88. The export earnings in 1987-88 are estimated at Rs. 6795 crores as compared to Rs. 6085 crores in 1986-87. The employment in these industries at the end of 1987-88 is placed at 36.7 million persons as against 35.5 million persons in 1986-87.

Fiscal Policy

1.18 During 1987-88 fiscal policy was mainly directed to maintain the momentum of development in the face of the challenges posed by severe drought. In September 1987, government levied surcharges on Personal Income, Corporate Income-tax, Wealth-tax and Customs Duty and also announced surcharges on domestic air fares and upper class railway fares. Concerted efforts were also made to effect economy in non-plan expenditure. The MODVAT introduced in 1986-87 budget was further expanded to cover additional items. The MODVAT aimed at minimising the incidence of taxation on inputs and would reduce the cascading effect and make the incidence of indirect taxation more transparent and help in reducing the cost and prices.

1.19 In view of the need to import essential commodities the Government undertook a number of external assistance initiatives to mobilise and accelerate the disbursement of external capital. Although the drought was likely to constrain the buoyancy in taxes and non-tax revenues, especially the latter part of the 1987 financial year, due to prompt anticipatory measures referred to above, the financial consequences on the over all government budget deficit were likely to be contained within manageable limits.

Monetary Policy and Price Situation

1.20 Monetary policy was mainly aimed at covering excess liquidity in the system. Money in terms of growth and M_1 and M_3 showed a smaller rise in 1987-88 as compared to 1986-87. M_3 recorded a growth of 15.2% as compared to about 17.7% in 1986-87. Narrow money (M_1) expanded by 12.3% in 1987-88 as compared to 15.8% in 1986-87.

RBI's net credit to Central Government increased by Rs. 7025 crores as against Rs. 6867 crores in 1986-87. The RBI intervened twice in the working of the monetary system. First on October 24, 1987 CCR was raised to 10% of the total deposits as against 9.5% earlier. Secondly, SLR was revised upwards to 38% effective January 1988 as against 37.5% earlier. While selective credit controls had been relaxed earlier in the fiancial year in view of positive price-output development, they were re-imposed/tightened between July and October 1987 in the case of oil seeds, vegetable oils, paddy/rice and other foodgrains except wheat, cotton and Kapas, due to inflationary pressures in sensitive commodities. Effective April 1987 important changes were made in the structure of interest rates of banks and postal deposits, bank credit as well as on other major financial instruments. The objectives guiding these changes were to reduce the over all cost of money in the economy to impart greater flexibility to interest rate policy. During 1987-88 average wholesale price index increased to 405.4 as compared to 376.8 during the previous year (base 1970-71 = 100). On the other hand, the Consumer Price Index recorded a higher percentage increase to a level of 741.50 as against 678.42 during the previous year (Base 1960 = 100).

1.21 The annual rate of inflation during 1987-88 in terms of wholesale prices was 7.6 per cent as against 5.3 per cent during the previous year. However, the Consumer Price Index registered an increase of 9.2% as compared to 8.7% during the previous year.

Balance of Payments

1.22 The balance of payments continued to be under strain in 1987-88 owing to adverse medium-term factors. These included the expected slackening in the growth of domestic crude oil production, protectionist tendencies in international trade, the bunching of repayment obligations to the IMF and the uncertain climate for concessional aid. The drought, entailing substantial additional imports of essential products, such as edible oils and pulses, added to these strains, which were reflected in a decline in foreign exchange reserves over the year to the extent of about Rs. 465 crores. The external payments, problem was, however, mitigated to some extent by drought relief assistance from Japan amounting to US $200 million intended for imports of essential commodities like edible oils and foodstuffs, as well as the earmarking of US $ 350 million by the World Bank and IDA as balance of payments support for similar purposes.

1.23 But for the encouraging growth of exports and the availability of substantial foodstocks, the drought would have seriously affected the balance of payments position. In fact, the data indicates more rapid nominal as well as volume growth of exports than in 1986-87, the country's export earnings in 1987-88 touched a record level of Rs. 15,719 crores, showing an increase of over 25 per cent in nominal terms as compared to the previous year's performance of Rs. 12,550 crores. Continued buoyancy was in evidence in the case of cotton textiles, readymade garments, leather and leather manufactures and gems and jewellery. At the same time, the decline in exports of tea, handicrafts, engineering goods and chemical and allied products was reversed. Imports increased nominally by about 11 per cent during 1987-88 to Rs. 22,343 crores from the preceding year's level of Rs. 20,063 crores. The rise in the import bill in 1987-88 can be attributed to the firming up of international oil prices and, to a smaller extent, to the additional food, edible oil and energy imports necessitated by the drought. All the same, the growth of non-oil imports during this period decelerated considerably. On the whole, the change in the composition of imports was characterized by increased demand for edible oils, energy, electrical machinery and organic and inorganic chemicals, as well as a sharp fall in imports of manufactured fertilisers. With exports growing more rapidly than imports, the trade deficit in 1987-88 at Rs. 6,624 crores is lower by about Rs. 900 crores in relation to the 1986-87 level.

Plan Outlay

1.24 The Plan outlay for 1988-89 has been fixed at Rs. 49,817.8 crores as against the approved outlay of Rs. 44698.43 crores in 1987-88, a step up of 11.45 per cent. Even compared to the revised plan outlay of Rs. 43677.93 crores, the 1988-89 outlay represents a step up of Rs. 6139.91 crores. With the proposed outlay for 1988-89 in four years, 92 per cent of the Seventh Plan outlay would be incurred at current prices. Table 1.1 below shows the Plan outlay and expenditure for the Centre and States for 1986-87, 1987-88 and 1988-89 :—

TABLE 1.1

Plan Outlay and Expenditure

(Rs. crores)

Year	Sector	Approved Outlay	Actual Expenditure	Percentage of Actual Expenditure to approved outlay
1	2	3	4	5
1986-87	Centre	22300.00	22401.76	100.46
	State	15878.85	16042.98	101 03
	UTs	872.68	704.37	80.71
	Total	39051.53	39149.11*	100.24

1	2	3	4	5
1987-88	Centre	25041.79	25700.69(RE)	102.63
	State	18957.80	17260.75(RE)	91.50
	UTs	698.84	716.49(RE)	102.53
	Total	44698.43	43677.93(RE)	97.72
1988-89	Centre	28714.64		
	State	20333.19		
	UTs	770.00		
	Total	49817.83		

In 1986-87 approved outlays of Mizoram and Arunachal Pradesh are included in UTs; the actual expenditure for these have been included under States.

In addition Rs. 361.19 crore during 1985-86, Rs. 556.05 crore during 1986-87 and Rs. 1113.55 crores during 1987-88 was provided as central assistance for relief against natural calamities.

Saving and Investment

1.25 The estimated savings and investment in 1986-87 and 1987-88 are shown in Table 1.2 below :—

TABLE 1.2

Estimates of Savings and Investment

(Rs. crores at current prices)

Sl. No.	Item	1986-87	1987-88
1.	Gross Domestic Savings . . .	63413	67693
2.	Net Capital Inflow from abroad .	5095*	4300*
3.	Gross-domestic capital formation	68508	71993
4.	Rate of Savings	21.7	21.0
5.	Rate of Investment	23.4	22.3

*Preliminary estimates likely to be revised upwards.

Thus the rate of savings is estimated to have gone down from 21.7 per cent in 1986-87 to 21.0 per cent in 1987-88. The net capital inflow from abroad has gone down from 5095 crores in 1986-87 to 4300 crores in 1987-88. As a result the rate of investment in 1987-88 is estimated to be lower at 22.3 per cent against 23.4 per cent in the previous year.

Annual Plan 1988-89

1.26 In keeping with the objectives indicated in the Seventh Five Year Plan, the accent in the Annual Plan 1988-89 continues to be on food, employment and productivity. High priority has been given to the development of agriculture and infrastructure. More than two-third of the Plan outlay has been allocated for agriculture, energy, transport and communication to prevent any bottlenecks in the growth of the economy. Special attention has been paid to the programmes for alleviation of poverty. Substantial provisions have also been made for agriculture and allied activities, irrigation, human resource development, etc. Besides within overall availability of resources, reasonable provisions have been made for other sectors of the economy. Further, concerted efforts will be made to control inflation and secure prudent management of balance of payments.

1.27 The outlay for Annual Plan 1988-89 has been fixed at Rs. 49818 crores comprising Rs. 28715 crores for the Central Plan (an increase of 14.4 per cent over the approved outlay and 11.6 per cent over the revised plan outlay 1987-88), Rs. 770 for Union Territories and Rs. 20333 crores for States. It is expected that domestic resources will finance 75.2 per cent of the Plan outlay while the net flow from abroad would amount for another 8.7 per cent. The remaining 16.1 per cent of the Plan Outlay would be met through deficit financing.

In view of successive drought situation and need to augment agricultural production it has been decided to increase the outlays of the Departments of Agriculture and Cooperation and Water Resources by forty per cent above the 1987-88 outlay. In addition, substantial outlays have been provided for the completion of fertiliser plants.

1.28 The major anti-poverty programmes, namely, Integrated Rural Development Programme (IRDP). National Rural Employment Programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP) will continue to be the main instruments for generating employment and increasing the earning opportunities for those below the poverty line. Thus, far, about 254 lakhs families have been assisted with a total investment of Rs. 8,413 crores under IRDP. Forty per cent of these beneficiaries belong to Scheduled Castes and Scheduled Tribes. Under NREP and RLEGP. 7.006 lakh man-days were generated in 1986-87 which was substantially higher than the target of 5,115 lakh man-days. The target is likely to be exceeded this year also.

1.29 The Central Government while financing its Plan and the bulk of Union Territories Plan Outlay will also transfer Rs. 8,330 crores for assistance for the States plans. Thus, the total transfers from Central to States including their shares in taxes are estimated at Rs. 26348 crores, an increase of Rs. 1478 crores.

1.30 The balance from current revenues of the Centre and the States taken together, after meeting their current non-Plan revenue expenditure, has been estimated at (—) Rs. 6998 crores at the 1984-85 rates of taxation. Out of the Central Governments' non-Plan expenditure of about Rs. 45641 crores, the major portion will go towards defence expenditure, interest payments and subsidies mainly on food, fertilisers and export promotion.

1.31 The contribution of public enterprises to Plan has been estimated at Rs. 6309 crores (Centre Rs. 7356 crores and States (−) Rs. 1047 crores). The additional resource mobilisation undertaken by the public enterprises are expected to yield Rs. 3782 crores in 1988-89.

1.32 Some public undertakings having plan outlays higher than internal resources are to raise funds from the market through the issue of bonds etc. Such of the undertakings as have surplus resources with them would transfer the same to other public sector undertakings which are deficient in funds either directly as loans or through the proposed Intercorporate Fund, the detailed modalities of which are being worked out.

1.33 To promote development in conditions of relative price stability, it will be of the utmost importance to finance the Plan in a non-inflationary manner. Every effort will have to be made to maximise receipts from taxes and other sources, restrain the growth of non-Plan expenditure and prevent any erosion of resources. Monetary policy will also have to be so operated as to help in curbing inflationary pressures and facilitate orderly financing of the investment programme.

1.34 Sustained and well directed efforts will be necessary for maintaining the viability of balance of payments without constraining output growth of capital formation. The trade deficit will need to be adequately contained by a more rapid growth of exports; export development, in fact, acquires particular importance as means of sustaining adequate and uninterrupted supplies of imported inputs for the smooth functioning of the economy, activating idle capacity and requiring industries gradually to attain international competitive standards. At the same time, the diversification and deepening of efficient import substitution will require continued support; besides replacing imports in specific areas at a relatively low cost in terms of domestic resources, this will facilitate improvements in productivity generally.

1.35 The Annual Plan 1988-89, accordingly envisages measures to improve expected long-term profitability of exports, so as to induce well equipped firms to plan for accelerated growth of their export operations. It also calls for the continuation of the high priority accorded to exports and further efforts to improve and expand export related infrastructure facilities. Along with specific measures to facilitate efficient import substitution, it places emphasis on better utilization of capacity in steel, fertilizers and other key industries. Finally, the Annual Plan underscores the importance of counter-inflationary demand management policies for ensuring viable balance of payments position.

CHAPTER 2

PUBLIC SECTOR PLAN OUTLAY

The Annual Plan for 1988-89, the penultimate year of the Seventh Five Year Plan, was formulated taking due note of the results of the review of performance of the plan and the signals generated by the Mid-term Appraisal of the Seventh Five Year Plan. The Mid-term Appraisal identified the critical tasks for economic management and the corrective steps needed for the remaining two years of the Plan. The appraisal revealed that the growth rates were trailing the prescribed targets, mainly due to very low to negative growth in agriculture, caused by unusually aberrant weather and severe drought conditions plaguing the system. There had also been a slow down in the spread of HYV area, in fertilizer consumption and in addition to net irrigated area. At the same time the significant performance of the economy, in the manufacturing, infrastructure and service sectors with achievements in excess of the targets, revealed the soundness of the strategies and policies adopted for the Seventh Plan. It was realised that for maintaining the growth objectives of the Seventh Plan, a very special effort was needed to take all possible steps to boost agricultural production and in that context a Framework Action Plan for Foodgrain Production was devised and launched. The Annual Plan for 1988-89 thus took into account, the results of the review of programmes and incorporated the course corrections required for the achievement of Plan targets in the remaining two years.

2.2 In the following paragraphs a brief review is given of the pattern of outlays provided for the earlier year, 1987-88 and the current year, 1988-89.

Annual Plan 1987-88

2.3 The Annual Plan for the third year of the Seventh Five Year Plan, viz., 1987-88, envisaged a total public sector outlay of Rs. 44,698.43 crores. Against this approved outlay, the revised estimates for the year is placed at 43677.93 crores. The Centre's expenditure exceeded the approved outlay by Rs. 658.90 crores while the expenditure of the States and UTs fell short of the approved outlay by Rs. 1679.40 crores. Also, a sum of Rs. 1113.55 crores was released to the States for expenditure on works for relief from natural calamities. The details of approved outlays and Revised Estimates are given in Table (2.2).

Annual Plan 1988-89

2.4 The Annual Plan for 1988-89 envisages a total Public Sector outlay of Rs. 49817.83 crores. This accounts for an increase of 11.45 per cent over the approved outlay of Rs. 44698.43 crores in 1987-88. All the major sectors of development record increase in their outlays for 1988-89 over the previous year.

2.5 The allocation for the Energy sector (including Power, Coal, Petroleum and non-conventional sources of energy) amounts to 29.80 per cent of the total public sector outlay in 1988-89. Four major sectors of development viz., Energy, Industry and Minerals, Transport and Irrigation & Flood Control account for about 63.42 per cent of the total public sector outlay; their individual share being 29.80 per cent, 11.62 per cent, 14.25 per cent and 7.75 per cent respectively. The share of some other important sectors of development in the total public sector outlay is as follows: Social Services (16.66%), Rural Development (5.72%) & agriculture (5.44%).

2.6 The outlay for Central sector is Rs. 28714.65 crores as against Rs. 25041.79 crores in 1987-88. This means a step up of 14.67 per cent. For the States & UTs it is 21103.18 crores as against Rs. 19656.64 crores in the previous year. This represents an increase of 7.36 per cent over 1987-88.

2.7 The approved outlay for 1988-89 for the Centre as well as for the States and Union Territories. together with the approved outlays for 1987-88 and the percentage step up are given in Table (2.1).

2.8 The allocation of 1988-89 Plan Outlay among different sectors has been made keeping in view the objectives, priorities and programme thrust contained in the Seventh Five Year Plan and on a realistic assessment of what could be achieved during the year in relation to physical and financial targets laid down for projects/programmes/schemes. The performance of the economy during the first three years of the Seventh Plan as reflected in the Mid Term Appraisal also guided the 1988-89 Annual Plan formulation. It takes into consideration the imperative need to increase production, productivity, and employment opportunities consistent with the increase in productivity and the growth potential of the economy. Due emphasis is given to Poverty Alleviation Programmes, which are an important segment of the Seventh Plan. Improvement of project formulation and implementation, avoidance of time and cost over runs and use of innovative methods and new techniques have been emphasised. The need for internal generation of resources and the capacity to mobilise extra-budgetary

TABLE 2.1

Annual Plan Outlay 1988-89

(Rs. Crores)

Head of Development	Annual Plan 87-88			Annual Plan 88-89			Percentage Change		
	Centre	States & UTs	Total	Centre	States & UTs	Total	Col. 5 by Col. 2	Col. 6 by Col. 3	Col. 7 by Col. 4
1	2	3	4	5	6	7	8	9	10
1. Agriculture & Allied Activites	911.93	1466.08	2378.01	1078.30	1633.83	2712.13	18.24	11.44	14.05
2. Rural Development	1650.95	1063.25	2714.20	1761.70	1087.10	2848.80	6.71	2.24	4.96
3. Special Area Programmes	0.00	696.70	696.70	0.00	771.80	771.80		10.78	10.78
4. Irrigation & Flood Control	167.00	3594.90	3761.90	217.30	3641.36	3858.66	30.12	1.29	2.57
5. Energy	7690.42	5308.53	12998.95	9195.96	5651.35	14847.31	19.58	6.46	14.22
6. Industry & Minerals	4716.08	918.96	5635.04	4789.06	1000.29	5789.35	1.55	8.85	2.74
7. Transport	4795.60	1447.78	6243.38	5572.00	1529.15	7101.15	16.19	5.62	13.74
8. Communications	1229.12	2.05	1231.17	1820.30	1.52	1821.82	48.10	−25.85	47.97
9. Science, Technology & Environment	630.45	39.88	670.33	750.43	45.17	795.60	19.03	13.26	18.69
10. General Economic Services	152.46	272.94	425.40	157.58	401.21	558.79	3.36	47.00	31.36
11. Social Services	3010.71	4575.71	7586.42	3268.43	5029.19	8297.62	8.56	9.91	9.37
12. General Services	87.07	269.86	356.93	103.59	311.21	414.8	18.97	15.32	16.21
Total	25041.79	19656.64	44698.43	28714.65	21103.18	49817.83	14.67	7.36	11.45

resources by the Public Sector Undertaking has been given due consideration while formulating the Plan.

Completion of projects under implementation has been given importance rather than taking up new starts.

TABLE 2.2

Approved Outlay and Revised Estimates for 1987-88—Centre, States and U.T.s

(Rs. Crores)

Head of Development	Approved Outlay 1987-88			Revised Estimates for 1987-88		
	Centre	States & UTs	Total	Centre	States & UTs	Total
1	2	3	4	5	6	7
1. Agriculture & Allied Activities	911.93	1466.08	2378.01	1157.23	1475.08	2632.31
2. Rural Development	1650.95	1063.25	2714.20	1744.14	1142.60	2886.74
3. Special Area Programmes	0.00	696.70	696.70	0.00	661.55	661.55
4. Irrigation & Flood Control	167.00	3594.90	3761.90	173.80	3172.09	3345.89
5. Energy	7690.42	5308.53	12998.95	7936.63	4315.90	12252.53
6. Industry & Minerals	4716.08	918.96	5635.04	4911.77	882.29	5794.06
7. Transport	4795.60	1447.78	6243.38	4639.38	1372.19	6011.57
8. Communications	1229.12	2.05	1231.17	1502.92	1.00	1503.92
9. Science, Technology & Environment	630.45	39.88	670.33	579.46	36.79	616.25
10. General Economic Services	152.46	272.94	425.40	140.21	230.01	370.22
11. Social Services	3010.71	4575.71	7586.42	2841.63	4415.23	7256.86
12. General Services	87.07	269.86	356.93	73.52	272.51	346.03
Total	25041.79	19655.64	44698.43	25700.69	17977.24	43677.93
Central assistance for Relief against Natural Calamities					1113.55	1113.55

2.9 The progress of expenditure during the Seventh Plan is given in Table 2.3. As against Seventh Plan outlay of Rs. 1,80,000 crores (at 1984-85 prices), the total for the first four years on the basis of actual expenditure for 1985-86 and 1986-87, revised estimates for 1987-88 and approved outlay for 1988-89 works out (at current prices) to Rs. 165,704.77 crores. Besides, an amount of Rs. 2030.79 crores was released to the States for expenditure on works for relief from natural calamities for three years. The expenditure during the first three years together with the outlay for 1988-89 (at current prices) accounts for about 92 per cent of the total outlay envisaged for Seventh Plan. At constant (1984-85) prices it is 76 per cent of the total Seventh Plan Outlay.

2.10 Annexure 2.1 to 2.5 give details of Plan outlays for 1988-89 revised estimates for 1987-88 and actual expenditure for 1986-87 for the Centre States and Union Territories.

TABLE 2.3

Progress of Expenditure—Seventh Plan 1985—90

Rs. Crores

Head of Development	VII Plan Outlay	Actual Exp. 85-86	Actual Exp. 86-87	Revised Est. 87-88	Outlay 1988-1989	Total for 4 years 1985-86 to 1988-89
1	2	3	4	5	6	7
1. Agriculture & Allied Activities	10523.62	1825.92	2215.79	2632.31	2712.13	9386.15
2. Rural Development	8906.08	2226.14	2667.65	2886.74	2848.80	10629.33
3. Special Area Programme	2803.59	447.33	627.60	661.55	771.80	2508.28
4. Irrigation & Flood Control	16978.65	2792.24	3221.63	3345.89	3858.66	13218.42
5. Energy	55128.96	9678.97	11458.40	12252.53	14847.31	48237.21
6. Industry & Minerals	22107.85	5437.12	5564.05	5794.06	5789.35	22584.58
7. Transport	22644.86	4072.19	5201.43	6011.57	7101.15	22386.34
8. Communications	4474.52	942.12	1085.61	1503.92	1821.82	5353.47
9. Science, Technology & Enviornment	2463.06	404.78	512.38	616.25	795.60	2329.01
10. General Economic Services	1395.60*	179.05	423.12	370.22	558.79	1531.18
11. Social Services	31545.24**	4858.45	5901.99	7256.86	8297.62	26314.92
12. General Services	1027.97	195.59	269.46	346.03	414.80	1225.88
Total	180000.00	33059.90	39149.11	43677.93	49817.83	165704.77
Central Assistance for Relief against Natural Calamities		361.19	556.05	1113.55		2030.79

*—Includes Provision for District Planning & National Savings Scheme.

**—Includes Provision for Special Employment Scheme.

Annexure 2.1

Plan Outlay by Heads of Development 1988-89 —Centre, States & Union Territories

Rs. in Crores

Sl. No.	Head of Development		Centre	States	UTs	Total
I.	**Agriculture & Allied Activities**		1078.30	1610.87	22.95	2712.12
1.	Crop Husbandry	12401	387.22	517.05	4.05	908.32
2.	Soil & Water Conservation	12402	38 00	125.71	1.02	164.73
3.	Animal Husbandry	12403	27.00	129.38	3.37	1 59.75
4.	Dairy Development	12404	58.17	45.08	0.47	103.72
5.	Fisheries	12405	53.00	73.62	3.25	129.87
6.	Forestry & Wild Life	12406	95.00	394.53	6.96	496.49
7.	Plantations	12407	32.48	3.55	0.00	36.03
8.	Food, Storage & Warehousing	12408	60.67	8.25	0.00	68.92
9.	Agricultural Research & Education	12415	96.00	78.16	0.80	174.96
10.	Agricultural Financial Institutions	12416	110.00	31.60	0.00	141.60
11.	Other Agricultural Programmes	12435	6.50	13.90	0.18	20.58
12.	Cooperation	12425	114.26	190.04	2.85	307.15
II.	**Rural Development**		1761.70	1083.77	3.34	2848.81
1.	Special Programme for Rural Development	12501	464.56	418.14	1.18	883.88
2.	Rural Employment	12505	1259.43	457.59	0.00	1717.02
3.	Land Reforms	12506	9.65	80.28	0.28	90.21
4.	Other Programmes of Rural Development	12515	28.06	127.76	1.88	157.70
III.	**Special Area Programmes**			771.80		771.80
1.	Hill Areas*	12551	0.00	220.54	0.00	220.54
2.	North Eastern Areas	12552	0.00	185.00	0.00	185.00
3.	Other Special Area Programmes	12575				
	a. Backward Areas		0.00	81.11	0.00	81.11
	b. Tribal Areas		0.00	185.00	0.00	185.00
	c. Others		0.00	100.15	0.00	100.15
IV.	**Irrigation & Flood Control**		217.30	3626.90	14.46	3858.66
1.	Major & Medium Irrigation	12701	16.25	2565.21	1.29	2582.75
2.	Minor Irrigation	12702	41.00	686.99	3.36	731.35
3.	Command Area Development	12705	125.00	220.78	0.01	345.79
4.	Flood Control & Drainage	12711	35.05	153.92	9.80	198.77
V.	**Energy**		9195.96	5434.49	216.87	14847.32
1.	Power	12801	3962.70	5405.57	215.81	9584.08
2.	Petroleum	12802	3394.56	0.00	0.00	3394.56
3.	Coal & Lignite	12803	1733.00	0.00	0.00	1733.00
4.	Non Conventional Sources of Energy	12810	105.00	28.92	1.06	134.98
5.	Energy Coordination & Development	12820	0.70	0.00	0.00	0.70
VI.	**Industry & Minerals**		4789.06	981.96	18.34	5789.36
1.	Village & Small Industries	12851	336.59	334.96	13.18	684,73
2.	Iron & Steel Industries	12852	1575.00	0.00	0.00	1575.00
3.	Non Ferrous Mining & Metallurgical Industries	12853	315.00	0.00	0.00	315.00
4.	Cement & Non-metallic Mineral Industries	12854	105.00	0.00	0.00	105.00
5.	Fertilizer Industries	12855	671.00	0.00	0.00	671.00

Annexure 2.1 (*Contd.*)

Rs. in Crores

Sl. No.	Head of Development		Centre	States	UTs	Total
6.	Petrochemical Industries	12856	406.56	0.00	0.00	406.56
7.	Chemical Industries	12857	39.44	0.00	0.00	39.44
8.	Engineering Industries	12858	328.07	0.00	0.00	328.07
9.	Telecommunication & Electronic Industries	12859	262.25	0.00	0.00	262.25
10.	Consumer Industries	12860	260.98	0.00	0.00	260.98
11.	Atomic Energy Industries	12861	283.57	0.00	0.00	283.57
12.	Other Industries	12675	7.60	0.00	0.00	7.60
13.	Other Outlays on Industries & Minerals	12855	198.00	647.00	5.16	850.16
VII.	**Transport**		**5572.00**	**1395.83**	**133.32**	**7101.15**
1.	Railways	13002	3850.00	0.00	0.00	3850.00
2.	Ports & Lighthouses	13051	525.79	20.82	7.14	553.75
3.	Shipping	13052	261.06	0.00	27.19	288.25
4.	Civil Aviation	13053	388.00	6.12	2.20	396.32
5.	Roads & Bridges	13054	410.00	963.06	85.29	1458.35
6.	Road Transport	13055	84.26	383.93	11.50	479.69
7.	Inland Water Transport	13056	43.89	19.12	0.00	63.01
8.	Other Transport Services	13075	9.00	2.78	0.00	11.78
VIII.	**Communication**		**1820.30**	**1.51**	**0.01**	**1821.82**
1.	Postal Services	13201	50.00	0.00	0.00	50.00
2.	Telecommunication Services	13225	1694.00	0.00	0.00	1694.00
3.	Overseas Communication Services					
4.	Satellite Systems					
5.	Other Communication Services	13275	76.30	1.51	0.01	77.82
IX.	**Science, Technology & Environment**		**750.43**	**44.14**	**1.03**	**795.60**
1.	Atomic Energy Research	13401	80.00	0.00	0.00	80.00
2.	Space Research	13402	354.00	0.00	0.00	354.00
3.	Oceanographic Research	13403	22.00	0.00	0.00	22.00
4.	Other Scientific Research	13425	207.46	21.62	0.69	229.77
5.	Ecology & Environment	13435	86.97	22.52	0.34	109.83
X.	**General Economic Services**		**157.58**	**395.91**	**5.30**	**558.79**
1.	Secretariat Economic Services	13451	1.83	18.02	0.55	20.40
2.	Tourism	13452	47.00	55.22	3.33	104.55
3.	Foreign Trade & Export Promotion	13453	18.71	0.00	0.00	18.71
4.	Census, Surveys & Statistics	13454	12.20	13.97	1.01	27.18
5.	Meteorology	13455	17.00	0.00	0.00	17.00
6.	Civil Supplies	13456	8.45	45.33	0.41	54.19
7.	General Financial & Trading Institutions	13465	6.29	0.00	0.00	6.29
8.	Technical & Economic Cooperation with other Countries	13605	0.30	0.00	0.00	0.30
9.	Other General Economic Services	13475	45.80	263.37	0.00	309.17
XI.	**Social Services**		**3268.43**	**4685.47**	**343.71**	**8297.61**
1.	General Education	22202	656.65	932.38	57.86	1646.90
2.	Technical Education	22203	141.00	120.85	14.75	276.60
3.	Sports & Youth Services	22204	69.64	51.05	4.78	125.47
4.	Art & Culture	22205	66.00	41.67	4.09	111.76
5.	Medical & Public Health	22210	228.00	589.99	50.12	868.11
6.	Family Welfare	22211	600.00	0.00	0.00	600.00
7.	Water Supply & Sanitation	22215	432.00	1187.55	80.77	1700.32
8.	Housing	22216	44.41	514.39	33.36	592.16

Annexure 2.1 (*Contd.*)

Rs. in Crores

Sl. No.	Head of Development		Centre	States	UTs	Total
9.	Urban Development	22217	30.24	368.52	77.99	476.75
10.	Information & Publicity	22220	18.00	25.80	1.47	45.27
11.	Broadcasting	22221	339.00	0.00	0.00	339.00
12.	Welfare of SC, ST and Other Backward Classes	22225	305.06	329.64	4.26	638.96
13.	Labour & Employment	22230	22.94	89.32*	2.98	115.24
14.	Social Security & Welfare	22235	314.00	145.57	3.45	463.02
15.	Nutrition	22236	0.78	288.74	7.83	297.35
16.	Secretariat Social Services	22251	0.70	0.00	0.00	0.70
XII.	**General Services**		**103.59**	**300.54**	**10.67**	**414.80**
1.	Currency, Coinage & Mint	32046	64.05	0.00	0.00	64.05
2.	Other Fiscal Services	32047	15.95	0.00	0.00	15.95
3.	Police	32055	5.00	0.00	0.00	5.00
4.	Supplies & Disposals	32057	0.04	0.00	0.00	0.04
5.	Stationery & Printing	32058	3.00	12.18	0.84	16.02
6.	Public Works	32059	5.35	194.69	9.42	209.46
7.	Other Administrative Services	32070	10.20	93.67	0.41	104.28
	Grand Total (I to XI)		**28714.68**	**20333.19**	**770.00**	**49817.84**

* Includes Rs- 16.78 crores for Special Employment Programme.

Annual Plan 1988-89—Approved Outlays—States

(Rs. lakhs)

Head/Sub-Head of Development	Andhra Pradesh	Aruna-chal Pradesh	Assam	Bihar	Goa	Gujarat	Haryana	Himachal Pradesh	J&K	Karna-taka	Kerala	Madhya Pradesh	Maha-rashtra
1	2	3	4	5	6	7	8	9	10	11	12	13	14
I. Agriculture & Allied Activities													
Crop Husbandry	1762	420	3246	2874	170	1797	1185	1315	1579	1694	2390	4388	3885
Soil & Water Conservation	105	365	385	500	30	500	337	250	335	1154	162	962	1457
Animal Husbandry	671	198	1080	580	112	455	500	160	759	434	315	800	201
Dairy Development	180	31	320	430	18	50	108	75	90	260	230	235	1000
Fisheries	700	56	476	270	100	600	165	60	125	332	700	294	404
Forestry & Wild Life	1611	587	1990	1500	135	3000	1650	2510	973	1238	1900	3800	3390
Plantations	—	—	—	—	—	—	—	—	—	—	—	—	—
Food, Storage & Warehousing	40	—	35	7	20	—	36	—	138	20	10	20	86
Agricultural Research & Education	207	5	1040	425	26	600	380	325	609	300	325	250	770
Agricultural Financial Institutions	400	—	30	230	—	110	300	113	20	230	235	100	200
Other Agricultural Programmes :													
(a) Marketing & Quality Control	129	36	120	230	5	30	—	60	130	7	58	20	—
(b) Others	—	—	—	—	—	—	—	5	—	—	—	—	—
Cooperation	601	121	850	1900	84	890	685	165	190	863	425	1900	2081
Total-I.	6406	1819	9572	8946	700	8032	5346	5038	4948	6532	6750	12769	14474
II. Rural Development													
Special Programme for Rural Development													
(a) Integrated Rural Development Programme (IRDP) & Allied Programmes	3206	236	868	4697	47	1557	352	206	495[*1]	1563	890	3453	2559
(b) Drought Prone Area Programme (DPAP)	602	—	—	405	—	323	67	—	98	625	—	405	765
(c) Integrated Rural Energy Programme (IREP)	20	18	21	50	15	40	50	75	25	90	21	50	40
Rural Employment													
(a) National Rural Employment Prog. (NREP)	2581	23	542	3773	24	889	251	162	199	1246	1017	2241	2140
(b) Other State Employment Programmes (like Employment Guarantee Scheme etc.)	—	—	—	—	37	—	—	—	—	127[*2]	—	—	16830

Annexure 2.2 (Contd.)
(Rs. lakhs)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Land Reforms	120	19	235	1425	—	300	44[16]	410	127	125	15	442	65
Other Rural Development Programmes :													
(a) Community Development & Panchayats	20	96	700	1277	29	176	359	141	206	2746	243	780	55
(b) Others	150[1]	—	—	—	—	—	—	—	—	200	—	—	—
Total—II	6699	392	2366	11627	152	3285	1123	994	1150	6722	2186	7371	22364
III. Special Area Programmes	14	23	233	1210	—	—	275	—	2490	—	100	—	224
IV. Irrigation & Flood Control													
Major & Medium Irrigation	25700	18	2679	32200	1600	30470	6990	225	1600	14370	5550	29409	34332
Minor Irrigation	3100	460	3688	7200	200	2800	228	1406	1239	3583	1350	7859	11707
Command Area Development Programmes	700	—	285	650	120	1260	1708	50	92	1690	600	2300	6781
Flood Control (incl. anti-sea erosion, etc.)	500	45	750	3700	18	200	1300	80	596	75	450	84	25
Total (IV)	30000	523	7402	43750	1938	34730	10226	1761	3527	19718	7950	39625	52845
V. Energy													
Power	21465	1220	14226	43804	770	33518	18283	5725	12100	20780	10265	55320	54456
Non-Conventional Sources of Energy	35	27	21	300	20	350	40	90	30	10	12	225	80
Total—V	21500	1247	14247	44104	790	33868	18323	5815	12130	20790	10277	55545	54536
VI. Industry & Minerals													
Village & Small Industries	2183	182	1240	2111	150	3000	556	265	1052	3443	2000	3209	1450
Industries (other than Village & Small Industries)	2949	180	3090	4800	421	2560	460	420	667	2313	3220	3081	7770
Weights & Measures	8	18	15	14	4	50	9	5	8	7	20	3	—
Mining	1060	6	92	725	10	925	25	25	156	70	60	245	85
Total—VI	6200	386	4437	7650	585	6535	1050	715	1883	5833	5300	6538	9305
VII. Transport													
Ports & Light Houses	175	—	—	—	8	624	—	—	—	350	288	—	187
Civil Aviation	—	113	—	45	—	—	21	80	—	—	—	46	156
Roads & Bridges	3025	4050	3600	10185	980	4650	1800	3200	2850	3106	3500	5200	9195
Road Transport	7035	167	806	900	204	2900	1400	575	494	1775	640	1511	6360
Inland Water Transport	50	—	271	10	200	6	—	5	700	11	273	—	47
Other Transport Services	60	11[14]	—	—	—	—	—	105[15]	—	252[24]	—	—	—
Total —(VII)	10345	4331	4677	11140	1392	8180	3221	3965	4044	5267	4701	6757	15945

1	2	3	4	5	6	7	8	9	10	11	12	13	14
VIII. Communications	—	—	—	—	—	150	—	—	—	—	—	—	—
IX. Science Technology & Environment													
Scientific Research (incl. S&T)	61	10	83	300	22	34	80	24	21	75	355	180	78
Ecology & Environment	140	3	47	28	11	52	88	10	38	25	95	950	110
Total—(IX)	201	13	130	328	33	86	168	34	59	100	450	1130	188
X. General Economic Services													
Sectt. Economic Services	113	15	52	90	5	100	19	64	39	67	133	47	18
Tourism	100	7	150	235	160	120	175	150	1900	150	180	275	149
Survey & Statistics	77	15	35	58	23	20	14	6	—	39	107	61^{28}	35
Civil Supplies	10	40	12	403	1	16	—	60	—	3285	9	—	—
Other General Economic Services :													
(a) District Planning/District Councils	2300^{2}	18	1100^{6}	6639	—	3750	600	375	—	—^{25}	—	—	6400
(b) Others	—	1^{5}	20^{7}	28^{10}	—	—	—	4^{18}	—	—	—	130^{29}	—
Total—(X)	2600	96	1369	7453	189	4006	808	659	1939	3541	429	513	6602
XI. Social Services													
Education													
General Education	5509	1701	5532	6500	813	3245	3243	1725	2462	2786	794	13039	6575
Technical Education	509	—	532	350	174	550	550	275	146	160	525	1080	2558
Sports & Youth Services	148	67	138	215	95	58	160	115	242	134	150	96	261
Art & Culture	234	117	471	115	108	142	60	95	70	246	170	263	263
Sub-Total—Education	6400	1885	6673	7180	1190	3995	4013	2210	2920	3325	1639	14477	9657
Medical & Public Health	3400	286	2550	4515	441	2359	1537	800	1909	2916	1400	4500	7682
Water Supply & Sanitation	7900	568	3135	3900	1125	6950	3290	1943	3886	4874	3200	5800	28900
Housing (incl. Police Housing)	7500	537	1037	2350	150	2994	802	816	1460	3343	1400	2063	8436
Urban Development (incl. State Capital Project)	2985	12	313^{8}	700^{11}	125	1900	200	250	1364^{22}	759^{26}	450	2132	4251
Information & Publicity	162	29	60	60	30	260	160	50	50	180	90	78	150
Welfare of SC, ST & OBCs	8491	—	600	1630^{12}	12	3190	603	168^{19}	177	1738	500	3900	2250
Labour & Employment													
(a) Labour & Labour Welfare	300	25	195	200	134	1084	240	45	91	361	116	371	1806
(b) Special Employment Scheme	300	—	—	—	—	208	—	—	67	506	—	37	—
Social Security & Welfare	1620	19	102	80	5	150	7465^{17}	80^{20}	114	1114	125	296^{30}	333
Nutrition	447	70	587	1200	59	5500	700	101	262	695	2389	687	595
Total—XI	39505	3431	15252	21815	3271	28590	19010	6463	12300	19812	11307	34341	64060

Annexure 2.2—(Contd.)

(Rs. lakhs)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
XII. General Services													
Stationery & Printing	15	32	31	22	2	—	50	95	41	35	150	48	—
Public Works (incl. Jails)	950	298	412	1913	146	—	360	440	454	1600	400	18	2352
Other Administrative Services:													
(a) Training	15	9	68	7	—	38	40	21	35	—	—	12	30
(b) Others	550[8]	—	804[9]	35[13]	2[14]	—	—	—	—	50[27]	—	5506[31]	75[33]
Total—XII	1530	339	1315	1977	150	38	450	556	530	1685	550	5584	2457
Grand Total (I to XII)	125000	12600	61000	160000	9200	127500	60000	26000	45000	90000	50000	170200	243000

Head/Sub Head of Development	Manipur	Meghalaya	Mizoram	Nagaland	Orissa	Punjab	Rajasthan	Sikkim	Tamilnadu	Tripura	Uttar Pardesh	West Bengal	Total (States)
1	15	16	17	18	19	20	21	22	23	24	25	26	27
I. Agriculture & Allied Activities													
Crop Husbandry	415	455	391	292	2609	1948	1350[41]	340	6248	768	8439	1745	51705
Soil & Water Conservation	220	350	190	228	350	675	99	200	878	200	2428	211	12571
Animal Husbandry	170	195	200	305	550	721	600	190	575	270	1307	590	1293
Dairy Development	30	25	8	30	145	155	200	22	105	50	540	171	4508
Fisheries	105	45	40	130	632	140	79	22	413	310	307	857	7362
Forestry & Wild Life	371	832	475	481	2165	633	1080	208	2470	450	4743	1261	39453
Plantations	120	—	—	155	—	—	—	—	—	80[43]	—	—	355
Food, Storage & Warehousing	25	7	—	10	15	18	13	10	20	12	214	69	82[illegible]
Agricultural Research & Education	80	25	5	47	160	306	200	22	681	23	678	327	7816
Agricultural Financial Institutions	1	1	—	—	38	450	180	—	125	5	350	42	3160
Other Agricultural Programmes:													
(a) Marketing & Quality Control	3	40	30	7	27	5	3	15	34	150	65	181	1385
(b) Others	—	—	—	—	—	—	—	—	—	—	—	—	5
Cooperation	100	140	100	55	1300	1300	1140	41	371	270	2661	761	19004
Total—(I)	**1640**	**2115**	**1439**	**1750**	**7991**	**6351**	**4944**	**1070**	**11920**	**2588**	**21732**	**6215**	**161087**
II. Rural Development													
Special Programme for Rural Development													
(a) Integrated Rural Development Programme (IRDP) & Allied Programmes	70	114	95	157	1687	444	1684	23	2338	119	6600	2475	35935
(b) Drought Prone Area Programme (DPAP)	—	—	—	—	293	—	257	—	329	—	693	243	5015
(c) Integrated Rural Energy Programme (IREP)	10	19	15	10	25	25	25	12	25	20	134	29	864

(*Annexure*—2.2—(*Contd.*)

(Rs. lakhs)

1	15	16	17	18	19	20	21	22	23	24	25	26	27
Rural Employment													
(a) National Rural Employment Programme (NREP)	120	41	21	33	1182	266	1048	21	2128	89	6074	1842	27953
(b) Other State Employment Programmes (like Employment Guarantee Scheme etc.)	—	—	—	—	500	—	—	—	—	274	38[46]	—	17806
Land Reforms	22	30	24	55	1165	10	65	22	12	153	2700	443	8028
Other Rural Development Programmes :													
(a) Community Development & Panchayats	140	72	90	505	207	535	396	16	383	195	2829	220	12416
(b) Others	—	10[26]	—	—	—	—	—	—	—	—	—	—	360
Total—(II)	**362**	**286**	**245**	**760**	**5059**	**1280**	**3475**	**94**	**5215**	**850**	**19068**	**5252**	**108377**
III. Special Area Programmes	—	**210**	—	**205**	—	—	**95**	—	—	**250[44]**	**1306**	**1476**	**8111**
IV. Irrigation & Flood Control													
Major & Medium Irrigation	1650	30	20	—	15303	5747	12212	—	3927	480	27254	4755	256521
Minor Irrigation	187	230	161	274	3310	785	1301	190	2711	451	11699	2580	68699
Command Area Development Programmes	45	20	—	—	300	400	1530	—	837	5	2550	155	22078
Flood Control (incl. anti-sea erosion etc.)	140	30	5	—	400	1200	197	20	443	180	2409	2545	15392
Total—(IV)	**2022**	**310**	**186**	**274**	**19313**	**8132**	**15240**	**210**	**7918**	**1116**	**43912**	**10035**	**362690**
V. Energy													
Power	1023	3100	1494	855	22403	37597	20756	1145	49888	1635	78756	29973	540557
Non-Conventional Sources of Energy	22	20	26	15	80	850	90	40	136	45	301	27	2892
Total—(V)	**1045**	**3120**	**1520**	**870**	**22483**	**38447**	**20846**	**1185**	**50024**	**1680**	**79057**	**30000**	**543449**
VI. Industry & Minerals													
Village & Small Industries	358	165	405	210	1483	635	947	87	3233	380	3154	1598	33496
Industries (Other than Village & Small Industries) 1	285	450	58	295	2878	1260	1428	138	3146	449	7563	7938	57819
Weights & Measures	8	10	6	15	12	5	5	4	26	8	37	25	322
Mining	17	55	30	180	880	5	1142	25	111	2	541	87	6559
Total—VI	**668**	**680**	**499**	**700**	**5253**	**1905**	**3522**	**254**	**6516**	**839**	**11295**	**9648**	**98196**

Annexure—2.2 (Contd.)

(Rs. lakhs.)

1	15	16	17	18	19	20	21	22	23	24	25	26	27
VII. Transport													
Ports & Light Houses	—	—	—	—	400	—	—	—	50	—	—	—	2082
Roads & Bridges	1450	1850	1300	1620	3700	1150	2350	1100	6140	1150	16577	2578	96306
Civil Aviation	—	—	—	—	17	20	—	—	—	—	90	24	612
Road Transport	131	235	160	221	1088	1300	725	160	2741	146	3659	3060	38393
Inland Water Transport	—	—	6	—	50	—	—	—	25	—	10	248	1912
Other Transport Services	25[47]	—	8[48]	—	—	—	—	50[51]	—	2[52]	2[4]	—	278
Total (VII)	**1606**	**2085**	**1474**	**1841**	**5255**	**2470**	**3075**	**1310**	**8956**	**1298**	**20338**	**5910**	**139583**
VIII. Communications	—	—	—	—		—	—	—	—	1	—	—	151
IX. Science, Technology & Environment													
Scientific Research (incl. S&T)	60	15	14	22	72	33	36	7	172	62	286	60	2162
Ecology & Environment	18	5	4	2	51	47	40	12	168	20	231	57	2252
Total—(IX)	**78**	**20**	**18**	**24**	**123**	**80**	**76**	**19**	**340**	**82**	**517**	**117**	**4414**
X. General Economic Services													
Sectt. Economic Services	11	15	11	39	64	40	55	18	9	11	722	45	1802
Tourism	36	70	35	66	300	30	235	62	150	40	627	120	5522
Survey & Statistics	16	11	12	32	40	82[49]	65[50]	11	27	12	595	4	1397
Civil Supplies	25	19	31	122	10	1	40	10	409	10	18	8	4533
Other General Economic Services :													
(a) Ditsrict Planning/Distt. Councils	100	65	500	—	637	450	75	—	150	1050[53]	—	1941	26150
(b) Others	—	—	—	—	—	4[10]	—	—	—	—	—	—	187
Total—(X)	**188**	**180**	**589**	**259**	**1051**	**607**	**470**	**101**	**745**	**1123**	**1956**	**2118**	**39591**
XI. Social Services													
Education :													
General Education	980	1033	502	609	4539	1851	6600	863	7116	1550	7557	6014	93238
Technical Education	60	30	45	60	470	525	438	—	685	10	1791	562	12085
Sports & Youth Services	150	60	45	197	468	172	100	32	184	140	1180	499	5105
Art & Culture	100	80	30	108	267	134	178	65	252	12	355	232	4167
Sub, Total (Education)	**1290**	**1203**	**622**	**974**	**5744**	**2682**	**7316**	**960**	**8237**	**1712**	**10983**	**7307**	**114595**

(Rs. lakhs

1	15	16	17	18	19	20	21	22	23	24	25	26	27
Medical & Public Health	350	359	342	520	1760	2068	3038	165	3607	454	9651	2390	58999
Water Supply & Sanitation	865	950	775	720	2436	1901	5400	475	17605	660	9813	2284	118755
Housing (incl. Police Housing)	275	580	236	487	1089[38]	1200	1025	110	4376	338	6812	2023	51439
Urban Development (incl .State Capital Projects)	190	154[37]	214	592	1370	925	373	60	4325	233	6766	6209	36852
Information & Publicity	32	21	35	115	242	100	40	30	46	90	288	182	2580
Welfare of SC, ST & OBCs	123	2	—	—	816	600	260	30	2870	375	3381	1248[46]	32964
Labour & Employment													
(a) Labour & Labour Welfare	57	23	16	71	367	100	176	8	377	45	933	113	7254
(b) Special Employment Schemes	120	—	—	40	—	—	—	—	30	—	—	370	1678
Social Security & Welfare	44[33]	45	50	35	196	263[40]	60	15	706	92[23]	1229	321	1455
Nutrition	80	92	86	210	500	279	450	46	11074	455	1755	555	28874
Total—XI	3426	3429	2376	3764	14520	10118	18138	1899	52653	4454	51611	23002	468547
XII. General Services													
Stationery & Printing	15	55	55	30	63	50	25	10	12	24	353	5	121
Public Works (incl. Jails)	330	300	90	372	2389	525	300	148	1401	95	2855	1321	19469
Other Administrative Services :													
(a) Training	—	—	9	40	—	35	—	—	—	—	—	1	360
(b) Others	870[34]	210[34]	—	111[36]	—	—	794[42]	—	—	—	—	—	
Total—XII	**1215**	**565**	**154**	**553**	**2452**	**610**	**1119**	**158**	**1413**	**119**	**3208**	**1327**	**30054**
Grand Total : (I to XII)	**12250**	**13000**	**8500**	**11000**	**83500**	**70000***	**71000**	**6300**	**145700**	**14400**	**254000**	**95100**	**1964250**

Foot Notes :

* As finalised by the Ministry of Finance.

1. For 'Cyclone Shelter'.
2. For 'Crucial Balancing Investment'.
3. Includes Rs. 500 lakhs for 'Mandal Buildings' and Rs. 50 lakhs for 'Commercial Taxes.'
4. For 'Ropeways'.
5. For 'Small Saving Scheme'.
6. For 'Sub-Divisional Special Programmes'.
7. For 'Public Enterprises'.
8. Includes Rs. 50 lakhs for 'Fire Protection Scheme'.
9. Includes Rs. 802 lakhs for 'Administrative Staff College' and Rs. 2 lakhs for 'Grants-in-aid to Voluntary Organisations in Hill Areas'.
10. For 'Coordination of 20-Point Programme'.

11. Includes Rs. 300 lakhs for 'Autonomous Development Authority'.
12. Includes Rs. 30 lakhs for 'Minorities Finance Commission'.
13. For 'Project Administration'.
14. Includes Rs. 1 lakh for 'Accounts' and Rs. 1 lakh for 'Gazetteers'.
15. Includes Rs. 100 lakhs for Ropeways/Cableways & Rs. 5 lakhs for 'Inter Modal Transport Study'.
16. Includes Rs. 20 lakhs for assistance to assignees of land declared surplus.
17. Includes Rs. 7200 lakhs on account of the transfer of old-age pension scheme.
18. For Institutional Finance & Public Enterprises.
19. Includes Rs. 35 lakhs for 'nucleus Budget for Tribal Areas' and Rs. 8 lakhs for Tribal Development Machinery.
20. Includes Rs. 20 lakhs for 'Ex-Servicemen Corporation'.
21. Includes Rs. 200 lakhs for 'Economic assistance to Displaced persons of 1947'.
22. Includes Rs. 94 lakhs for Parks & Gardens.
23. Includes Rs. 81 lakhs for REGS.
24. For Motor Vehicle Pollution Control.
25. Rs. 24550 lakhs have been earmarked for Zila Parishad Plans by the State Govt. from their overall State Plan.
26. Includes Rs. 150 lakhs for Fire Protection Services.
27. For 'Modernisation of Administration'.
28. Includes Rs. 50 lakhs for 'Computer Centre'.
29. For 'Development Programmes'.
30. Includes Rs. 33 lakhs for 'Legal Aid to Poor'.
31. Includes Rs. 5500 lakhs for 'Upgradation of Administration' and Rs. 6 lakhs for 'Codification of Customary Laws'.
32. Includes Rs. 70 lakhs for Installation of Computers in Distt. Treasuries & Rs. 5 lakhs for Consumer Protection.
33. Includes Rs. 2 lakhs for 'Legal Aid & Advice'.
34. For 'Upgradation of Administration'.
35. Includes Rs. 5 lakhs for 'State Centre for Research & Training in Rural Development'.
36. For 'Pilot Project for Village Development'.
37. Includes Rs. 22 lakhs for 'Aid to Municipalities'.
38. Includes Rs. 4 lakhs for 'Parliamentary Affairs' and Rs. 107 lakhs for 'Upgradation of Standard of Administration'.
39. Includes Rs. 350 lakhs for Development Scheme of Police Department'.
40. Includes Rs. 50 lakhs for 'Defence Services Welfare'.
41. Includes Rs. 280 lakhs for 'Massive Programme of Assistance to Small & Marginal Farmers'.
42. Includes Rs. 769 lakhs for 'Upgradation Grants' and Rs. 25 lakhs for 'Administrative Reforms'.
43. For 'Tribal Rehabilitation in Plantation & Primitive Group Programme'.
44. For 'BADP'.
45. For 'RLEGP'.
46. Includes Rs. 14 lakhs for 'Minority Girls' Hostel'.
47. Includes Rs. 20 lakhs for 'City Bus Terminal' and Rs. 5 lakhs for 'Motor Vehicle Wing'.
48. For 'Motor Vehicle Wing'.
49. Includes Rs. 50 lakhs for 'Computerisation' and Rs. 4 lakhs for 'CRRID'.
50. Includes Rs. 40 lakhs for 'Computerisation & Modernisation'.
51. For Helicopter Services.
52. For 'Planning Development Cell'.
53. For 'Tripura Tribal Area Autonomous District Council'.

Annexure—2.3

Annual Plan 1988-89—Approved Outlays—Union Territories

(Rs. lakhs)

Head/Sub-Head of Development	A&N Islands	Chandigarh	Dadra & Nagar Haveli	Daman & Diu	Delhi	Lakshadweep	Pondicherry	Total (U.Ts.)
1	2	3	4	5	6	7	8	9
I. Agriculture & Aillied Activities								
Crop Husbandry	65.00	2.68	43.74	6.95	99.25	70.40	117.50	405.51
Soil & Water Conservation	28.80	3.77	49.68	0.30	4.00	—	15.00	101.55
Animal Husbandry	80.00		20.16	3.35	96.75	63.00	55.00	337.26
Dairy Developments.	25.00	19.00	5.09	4.60	—	—	12.10	46.79
Fisheries	60.00	2.00	2.00	50.00	28.00	82.82	100.00	324.8
Forestry & Wild Life	350.00	27.60	148.85	30.00	90.00	—	50.00	696.4
Food Storage & Warehousing	—	—	—	—	—	—	0.27	0.27
Agricultural Research & Education	—	—	—	—	—	—	80.00	80.00
Other Agricultural Programmes								
Marketing & Quality Control	—	—	—	—	12.00	—	6.00	18.00
Cooperation.	10.50	30.00	14.52	7.35	65.00	28.00	130.00	285.37
Total—(I)	619.30	85.05	284.03	102.55	395.00	244.22	555.87	2296.02
II. Rural Development								
Special Programme for Rural Development								
Integrated Rural Energy Programme (IREP)	4.00	—	3.50	—	100.00	0.40	10.00	117.90
Land Reforms.	3.00	—	3.40	3.00	7.30	0.20	11.00	27.90
Other Rural Development Programmes :								
Community Development & Panchayats	10.50	30.00	14.50	0.75	12.70	—	119.20	187.65
Total—(II)	17.50	30.00	21.40	3.75	120.00	0.60	140.20	333.45
III. Special Area Programmes	—	—	—	—	—	—	—	—
IV. Irrigation & Flood Control								
Major & Medium Irrigation	—	—	7.48	85.00	—	—	37.00	129.48
Minor Irrigation	42.00	20.00	35.00	1.30	93.00	—	144.38	335.68
Command Area Development Programmes	—	—	1.00	—	—	—	—	1.00
Flood Control (incl. anti-sea erosion etc.)	—	—	—	10.00	833.00	30.00	57.10	980.10
Total—(IV)	42.00	20.00	43.48	96.30	976.00	30.00	238.48	1446.26

Annexure—2.3 (*Contd.*)
(Rs. lakhs

1	2	3	4	5	6	7	8	9
V. Energy								
Power	1673.00	791.50	122.65	143.40	18150.10[10]	100.00	600.00	21580.55
Non-Conventional Sources of Energy	22.00	0.30	2.39	0.10	50.00	14.00	17.00	105.79
Total—(V)	1695.00	791.80	125.04	143.50	18200.00	114.00	617.00	21686.34
VI. Industry & Minerals								
Village & Small Industries	140.00[1]	31.00	36.00	5.70	685.00	26.80	393.02	1317.52
Industries (other than Village & Small Industries)	—	3.00	—	90.00	95.00	—	302.00	490.00
Weights & Measures	—	0.90	—	0.25	20.00	1.37	3.00	25.52
Total—(VI)	**140.00**	**34.90**	**36.00**	**95.95**	**800.00**	**28.17**	**698.02**	**1833.04**
VII. Transport								
Ports & Light Houses	430.00	—	—	0.20	—	33.75	250.00	713.95
Shipping	2000.00	—	—	—	—	718.93	—	2718.93
Civil Aviation	—	—	—	—	—	160.00	60.00	220.00
Roads & Bridges	645.00	25.00	185.00	100.00	7250.00	24.25	300.00	8529.25
Road Transport	100.00	260.00	—	10.00	755.00	—	25.00	1150.00
Total—(VII)	**3175.00**	**285.00**	**185.00**	**110.20**	**8005.00**	**936.93**	**635.00**	**13332.13**
VIII. Communications	—	—	—	—	—	1.00	—	1.00
IX. Science, Technology & Environment								
Scientific Research (incl. S&T)	35.00	15.00	0.60	—	12.80	3.00	3.00	69.40
Ecology & Environment	2.00	—	0.40	—	28.20	—	3.00	33.60
Total—(IX)	**37.00**	**15.00**	**1.00**	—	**41.00**	**3.00**	**6.00**	**103.00**
X. General Economic Services								
Sectt. Economic Services	3.00	2.00	1.00	3.00	26.00	4.36	15.20	54.5
Tourism	26.00	59.00	30.00	53.30	95.00	19.88	50.00	333.18
Survey & Statistics	2.00	0.75	1.00	11.75[9]	56.00	—	30.00[11]	101.50
Civil Supplies	25.00	3.50	1.50	—	7.00	—	4.00	41.00
Total—(X)	**56.00**	**65.25**	**33.50**	**68.05**	**184.00**	**24.24**	**99.20**	**530.24**

(Rs. lakhs)

1	2	3	4	5	6	7	8	9
XI. Social Services								
Education								
General Education	460.00	375.00	89.24	47.50	4080.00	120.00	614.27	5786.01
Technical Education	50.00	140.00	5.40	80.00	850.00	—	349.51	1474.91
Sports & Youth Services	20.00	130.00	2.36	9.00	130.00	11.00	175.83	478.19
Art & Culture	6.00	26.00	5.00	2.50	300.00	9.00	60.39	408.89
Sub-Total (Education)	536.00	671.00	102.00	139.00	5360.00	140.00	1200.00	8148.00
Medical & Public Health	130.00	200.00	30.00	76.40	4300.00	26.04	250.00	5012 44
Water Supply & Sanitation	200.00	345.00	33.20	181.90	7127.00	39.00	151.13	8077.23
Housing (incl. Police Housing)	80.00	700.00	20.20	38.90	2100.00	96.87	300.00	3335.97
Urban Development (incl. State Capital Projects)	110.00[1]	1300.00	16.85[7]	11.95[6]	6200.00	—	160.00	7798.80
Information & Publicity	35.00	8.00	3.20	3.00	54.00	16.50	27.30	147.00
Welfare of Scheduled Castes, Scheduled Tribes & Other Backward Classes	5.00	12.00	—	29.35	260.00	—	120.00	426.35
Labour & Employment								
Labour & Labour Welfare	34.85	13.00	20.00	14.30	157.00	11.22	47.80	298.17
Social Security & Welfare	13.95[2]	34.00[5]	2.00	1.05	245.00	9.60	39.00	344.60
Nutrition	34.00	50.00	15.50	9.50	582.00	7.00	85.00	783.00
Total—(XI)	1178.80	3333.00	242.95	505.35	26385.00	346.23	2380.23	34371.56
XII. General Services								
Stationery & Printing	7.40	—	2.60	8.10	1.00	20.00	45.00	84.10
Public Works (incl. Jails)	127.00	—	15.00	60.15	663.00	1.61	75.00	941.76
Other Administrative Services								
(a) Training	—	—	—	—	30.00	—	—	30.00
(b) Others	5.00[4]	—	—	6.10[9]	—	—	—	11.10
Total—(XII)	**139.40**	—	**17.60**	**74.35**	**694.00**	**21.61**	**120.00**	**1066.96**
Grand Total (I to XII)	**7100.00**	**4660.00**	**990.00**	**1200.00**	**55800.00[10]**	**1750.00**	**5500.00**	**77000.00**

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1. Includes Rs. 100 lakhs for 'Development Corporation'.
2. Includes Rs. 50 lakhs for 'Police Fire Services'.

(Rs. lakhs)

3. Includes Rs. 2.97 lakhs for 'Rehabilitation of Ex-Servicemen'
4. For 'Official Language'.
5. Includes Rs. 4.30 lakhs for 'Ex-Servicemen'.
6. Includes Rs. 7.41 lakhs for 'Fire Services'.
7. Includes Rs. 15.00 lakhs for 'Police Fire Services'.
8. Includes Rs. 5.00 lakhs for 'Computer Services'.
9. For 'Accounts Services'.
10. Includes Rs. 4300 lakhs as Special Central Assistance for Power Projects.
11. Includes Rs. 25 lakhs for 'Computerisation'.

Annexure 2.4

Revised Estimates by Heads of Development 1987-88—Centre, States & Union Territories

(Rs. in Crores)

Sl No	Head of Development		Centre	State	UTs	Total
(1)	(2)		(3)	(4)	(5)	(6)
I.	**Agriculture & Allied Activities**		**1157.23**	**1455.49**	**19.59**	**2632.31**
1.	Crop Husbandry	12401	253.38	502.49	4.46	760.33
2.	Soil & Water Conservation	12402	35.65	118.70	0.86	155.21
3.	Animal Husbandry	12403	18.80	108.00	3.19	129.99
4.	Dairy Development	12404	78.93	41.10	0.16	120.19
5.	Fisheries	12405	46.12	61.39	2.63	110.14
6.	Forestry & Wild Life	12406	83.42	320.91	4.76	409.09
7.	Plantations	12407	33.00	3.30		36.30
8.	Food, Storage & Warehousing	12408	67.19	7.45	0.00	74.64
9.	Agricultural Research & Education	12415	82.00	64.78	0.15	146.93
10.	Agricultural Financial Institutions	12416	347.39	28.58		375.97
11.	Other Agricultural Programmes	12435	6.18	13.87	0.30	20.35
12.	Cooperation	12425	105.17	184.92	3.08	293.17
II.	**Rural Development**		**1744.14**	**1139.47**	**3.14**	**2886.75**
1.	Special Programme for Rural Development	12501	383.80	433.41	1.06	818.27
2.	Rural Employment	12505	1334.90	477.68		1812.58
3.	Land Reforms	12506	3.55	84.15	0.32	88.02
4.	Other Programmes of Rural Devlopment	12515	21.89	144.23	1.76	167.88
III.	**Special Area Programmes**		—	**661.55**	—	**661.55**
1.	Hill Areas		—	204.00	—	204.00
2.	North Eastern Areas		—	150.00	—	150.00
3.	Other Special Area Programmes					
a.	Backward Areas		—	75.33	—	75.33
b.	Tribal Areas		—	168.50	—	168.50
c.	Others		—	63.72	—	63.72
IV.	**Irrigation & Flood Control**		**173.80**	**3157.35**	**14.73**	**3345.88**
1.	Major & Medium irrigation	12701	10.05	2219.94	1.10	2231.09
2.	Minor Irrigation	12702	39.94	604.29	3.70	647.93
3.	Command Area Development	12705	90.00	192.87	—	282.87
4.	Flood Control	12711	33.81	140.25	9.93	183.99
V.	**Energy**		**7935.63**	**4119.51**	**196.39**	**12252.53**
1.	Power	12801	3140.48	4102.01	195.21	7437.70
2.	Petroleum	12802	3414.99	—	—	3414.99
3.	Coal & Lignite	12803	1280.97	—	—	1280.97
4.	Non Conventional Sources of Energy	12810	99.56	17.50	1.18	118.24
5.	Energy Coordination & Development	12820	0.63	—	—	0.63
VI.	**Industry & Minerals**		**4911.77**	**865.03**	**17.26**	**5794.06**
1.	Village & Small Industries	12851	302.22	303.12	14.37	619.71
2.	Iron & Steel Industries	12852	1519.97	—	—	1519.97

Annexure 2.4 (*Contd.*)

(Rs. in Crores)

Sl No	Head of Development		Centre	States	UTs	Total
(1)	(2)		(3)	(4)	(5)	(6)
	3. Non Ferrous Mining & Metallurgical Industries	12853	404.48	57.66	1.12	463.26
	4. Cement & Non-metallic Mineral Industries	12854	85.00	—	—	85.00
	5. Fertilizer Industries	12855	995.47	—	—	995.47
	6. Petrochemical Industries	12856	332.99	—	—	332.99
	7. Chemical Industries	12857	37.30	—	—	37.30
	8. Engineering Industries	12858	261.45	—	—	261.45
	9. Telecommunication & Electronic Industries	12859	304.54	—	—	304.54
	10. Consumer Industries	12860	133.20	—	—	133.20
	11. Atomic Energy Industries	12861	260.72	—	—	260.72
	12. Other Industries	12675	4.57	—	—	4.57
	13. Other Outlays on Industries & Minerals	12855	269.86	504.25	1.77	775.88
VII.	**Transport**		**4639.38**	**1247.79**	**124.40**	**6011.57**
	1. Railways	13002	3300.00	—	—	3300.00
	2. Ports & Lighthouses	13051	269.09	20.08	6.67	295.84
	3. Shipping	13052	223.87	—	17.34	241.21
	4. Civil Aviation	13053	397.45	9.04	2.11	408.61
	5. Roads & Bridges	13054	346.50	851.20	93.76	1291.46
	6. Road Transport	13055	66.16	353.63	4.50	424.29
	7. Inland Water Transport	13056	31.10	11.05	—	42.15
	8. Other Transport Services	13075	5.20	2.79	0.02	8.01
VIII.	**Communication**		**1502.92**	**1.00**	**0.00**	**1503.92**
	1. Postal Services	13201	35.00	—	—	35.00
	2. Telecommunication Services	13225	1392.80	—	—	1392.80
	3. Overseas Communication Services					
	4. Satellite Systems					
	5. Other Communication Services	13275	75.12	1.00	—	76.12
IX.	**Science, Technology & Environment**		**579.46**	**35.80**	**0.99**	**616.25**
	1. Atomic Energy Research	13401	58.95	—	—	58.95
	2. Space Research	13402	278.71	—	—	278.71
	3. Oceanographic Research	13403	13.73	—	—	13.73
	4. Other Scientific Research	13425	157.63	18.68	0.64	176.95
	5. Ecology & Environment	13435	70.44	17.12	0.35	87.91
X.	**General Economic Services**		**140.21**	**224.08**	**5.93**	**370.22**
	1. Secretariat Economic Services	13451	1.43	14.24	0.60	16.27
	2. Tourism	13452	31.66	50.60	3.14	85.40
	3. Foreign Trade & Export Promotion	13453	17.09	—	—	17.09
	4. Census, Surveys & Statistics	13454	11.21	7.13	1.34	19.68
	5. Meteorology	13455	9.29	—	—	9.29
	6. Civil Supplies	13456	6.55	11.87	0.85	19.27
	7. General Financial & Trading Institutions	13465	7.85	—	—	7.85
	8. Technical & Economic Cooperation with other Countries	13605	0.28	—	—	0.28
	9. Other General Economic Services	13475	54.85	140.24	—	195.09
XI.	**Social Services**		**2841.63**	**4091.50**	**323.74**	**7256.87**
	1. General Education	22202	538.75	752.60	57.88	1349.23
	2. Technical Education	22203	173.00	94.12	12.02	279.14

Annexure 2.4 (*Contd.*)

(Rs. in Crores)

Sl No (1)	Head of Development (2)		Centre (3)	States (4)	UTs (5)	Total (6)
3.	Sports & Youth Services	22204	58.07	47.04	2.73	107.84
4.	Art & Culture	22205	50.89	31.54	4.62	87.05
5.	Medical & Public Health	22210	191.14	537.27	44.62	773.03
6.	Family Welfare	22211	572.89	—	—	572.89
7.	Water Supply & Sanitation	22215	390.43	1090.58	72.65	1553.66
8.	Housing	22216	31.95	485.74	40.70	558.39
9.	Urban Development	22217	23.47	301.21	70.41	395.09
10.	Information & Publicity	22220	11.68	20.87	1.25	33.80
11.	Broadcasting	22221	276.69	—	—	276.69
12.	Welfare of SC, ST and Other Backward Classes	22225	235.04	303.58	3.72	542.34
13.	Labour & Employment	22230	18.32	84.98*	2.50	105.80
14.	Social Security & Welfare	22235	268.66	60.73	3.59	332.98
15.	Nutrition	22236	0.26	281.24	7.05	288.55
16.	Secretariat Social Services	22251	0.39	—	—	0.39
XII.	**General Services**		**73.52**	**262.18**	**10.32**	**346.02**
1.	Currency, Coinage & Mint	32046	48.04	—	—	48.04
2.	Other Fiscal Service	32047	9.18	—	—	9.18
3.	Police	32055	3.68	—	—	3.68
4.	Supplies & Disposals	32057	0.03	—	—	0.03
5.	Stationery & Printing	32058	5.71	10.99	0.72	17.42
6.	Public Works	32059	4.35	196.49	9.20	210.04
7.	Other Administrative Services	32070	2.53	54.70	0.40	57.63
	Grand Total (I to XII)		25700.69	17260.75	716.49	43677.93
	Central Assistance for Relief Against Natural Calamities		—	1113.55	—	1113.55

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*Includes Rs 23.76 crores for Special Employment Programme.

Annexure **2.5**

Actual Plan Expenditure by Heads of Development—1986-87—Centre, States & Union Territories.

(Rs. in crores)

Head of Development		Centre	States	U.Ts.	Total
I. Agriculture & Allied Activities		**864.74**	**1329.88**	**21.17**	**2215.79**
1. Crop Husbandry	12401	214.00	423.57	3.96	641.53
2. Soil & Water Conservation	12402	35.17	110.83	1.15	147.15
3. Animal Husbandry	12403	13.75	93.00	3.65	110.40
4. Dairy Development	12404	59.19	39.02	0.20	98.41
5. Fisheries	12405	57.35	55.89	2.73	115.97
6. Forestry & Wildlife	12406	63.68	271.57	5.03	340.28
7. Plantations	12407	31.97	2.08	0.00	34.05
8. Food, Storage & Warehousing	12408	73.36	19.53	0.20	93.09
9. Agricultural Research & Education	12415	77.18	57.04	0.83	135.05
10. Agricultural Financial Institutions	12416	140.12	37.27	0.00	177.39
11. Other Agricultural Programmes	12435	11.89	22.17	0.10	34.16
12. Cooperation	12425	87.08	197.91	3.32	288.31
II. Rural Development		**1617.75**	**1045.99**	**2.91**	**2667.65**
1. Special Programme for Rural Development	12501	377.56	357.39	0.08	735.03
2. Rural Employment	12505	1214.27	528.96	0.00	1743.23
3. Land Reforms	12506	4.24	76.11	0.51	80.86
4. Other Programmes for Rural Development	12515	21.68	84.53	2.32	108.53
III. Special Area Programmes		**0.00**	**627.60**	**0.00**	**627.60**
1. *Hill Areas*					
Western Ghats		0.00	23.99	0.00	23.99
Other Hill Areas		0.00	162.71	0.00	162.71
2. *North Eastern Areas*		00.0	144.13	0.00	144.13
3. *Other Special Area Programmes*					
(*a*) Backward Areas		0.00	65.18	0.00	65.18
(*b*) Tribal Areas			155.00	0.00	155.00
(*c*) Others		0.00	76.59	0.00	76.59
IV. Irrigation & Flood Control		**171.09**	**3023.23**	**27.31**	**3221.63**
1. Major & Medium Irrigation	12701	11.33	2145.83	11.42	2168.58
2. Minor Irrigation	12702	33.40	549.97	4.65	588.02
3. Command Area Development	12705	94.10	190.14	1.30	285.54
4. Flood Control	12711	32.26	137.29	9.94	179.49
V. Energy		**7367.38**	**3888.62**	**202.40**	**11458.40**
1. Power	12801	2628.43	3872.91	200.11	6701.45
2. Petroleum	12802	3382.03	0.00	0.00	3382.03
3. Coal & Lignite	12803	1233.05	0.00	0.00	1233.05
4. Non-conventional Sources of Energy	12810	123.66	15.71	2.29	141.66
5. Energy Coordination & Development	12820	0.21	0.00	0.00	0.21
VI. Industry & Minerals		4637.44	907.65	18.96	5564.05
1. Village & Small Industries	12851	311.44	290.20	14.10	615.74
2. Iron & Steel Industries	12852	1357.54	0.00	0.00	1357.54
3. Non Ferrous Mining & Metallurgical Industries	12853	696.74	0.00	0.00	696.74

Annexure 2.5—(Contd.)

(Rs in crores)

Head of Development		Centre	States	U.Ts.	Total
4. Cement & Non-metallic Mineral Industries	12854	55.57	0.00	0.00	55.57
5. Fertilizer Industries	12855	845.97	0.00	0.00	845.97
6. Petrochemical Industries	12856	245.81	0.00	0.00	245.81
7. Chemical Industries	12857	26.72	0.00	0.00	26.72
8. Engineering Industries	12858	239.33	0.00	0.00	239.33
9. Telecommunication & Electronic Industries	12859	185.77	0.00	0.00	185.77
10. Consumer Industries	12860	114.51	0.00	0.00	114.51
11. Atomic Energy Industries	12861	305.35	0.00	0.00	305.35
12. Other Industries	12675	2.35	0.00	0.00	2.35
13. Other Outlays on Industries & Minerals	12855	250.34	617.45	4.86	872.65
VII. Transport		**3847.52**	**1243.55**	**110.36**	**5201.43**
1. Railways	13002	2697.06	0.00	0.00	2697.06
2. Ports & Lighthouses	13051	221.01	18.93	7.65	247.59
3. Shipping	13052	145.18	5.85	7.25	158.28
4. Civil Aviation	13053	405.21	3.13	1.19	409.53
5. Roads & Bridges	13054	291.69	820.77	85.85	1198.31
6. Road Transport	13055	65.45	382.14	6.77	454.36
7. Inland Water Transport	13056	15.79	11.93	1.65	29.37
8. Other Transport Services	13075	6.13	0.80	0.00	6.93
VIII. Communication		**1084.81**	**0.80**	**0.00**	**1085.61**
1. Postal Services	13201	33.33	0.00	0.00	33.33
2. Telecommunication Services	13225	1021.94	0.00	0.00	1021.94
3. Other Communication Services	13275	29.54	0.80	0.00	30.34
IX. Science, Technology & Environment		**480.92**	**30.62**	**0.84**	**512.38**
1. Atomic Energy Research	13401	46.31	0.00	0.00	46.31
2. Space Research	13402	258.51	0.00	0.00	258.51
3. Oceanographic Research	13403	10.38	0.00	0.00	10.38
4. Other Scientific Research	13425	120.25	17.54	0.48	138.27
5. Ecology & Environment	13435	45.47	13.08	0.36	58.91
X. General Economic Services		**122.01**	**296.28**	**4.83**	**423.12**
1. Secretariat Economic Services	13451	0.98	7.31	0.90	9.19
2. Tourism	13452	30.92	33.89	2.99	67.80
3. Foreign Trade & Export Promotion	13453	24.73	0.00	0.00	24.73
4. Census, Surveys & Statistics	13454	9.68	6.50	0.68	16.86
5. Meteorology	13455	6.71	0.00	0.00	6.71
6. Civil Supplies	13456	4.49	9.45	0.26	14.20
7. General Financial & Tradding Institutions	13465	3.97	0.00	0.00	3.97
8. Technical & Economic Cooperation with other Countries	13605	0.22	0.00	0.00	0.22
9. Other General Economic Services	13475	40.31	239.13	0.00	279.44
XI. Social Services		**2158.30**	**3437.76**	**305.93**	**5901.99**
1. General Education	22202	219.22	594.44	48.66	862.32
2. Technical Education	22203	69.00	73.30	9.76	152.06
3. Sports & Youth Services	22204	45.65	31.75	3.29	80.69
4. Art & Culture	22205	70.20	27.55	5.53	103.28
5. Medical & Public Health	22210	172.82	419.31	49.64	641.77
6. Family Welfare	22211	561.11	0.00	0.00	561.11
7. Water Supply & Sanitation	22215	330.23	890.48	71.83	1292.54

Annexure 2.5 (*Concld*)

(Rs. in crores)

Head of Development		Centre	States	U.Ts.	Total
8. Housing	22216	31.54	498.24	31.26	561.04
9. Urban Development	22217	20.68	267.06	71.27	359.01
10. Information & Publicity	22220	8.26	19.02	1.14	28.42
11. Broadcasting	22221	228.02	0.00	0.00	228.02
12. Welfare of SC, ST and Other Backward Classes	22225	218.64	249.32	3.02	470.98
13. Labour & Employment	22230	15.76	61.84*	2.46	80.06
14. Social Security & Welfare	22235	166.98	90.77	2.13	259.88
15. Nutrition	22236	0.19	214.47	5.94	220.60
16. Secretariat Social Services	22251	—	0.21	0.00	0.21
XII. General Services		**49.80**	**210.00**	**9.66**	**269.46**
1. Currency, Coinage & Mint	32046	27.75	0.00	0.00	27.75
2. Other Fiscal Services	32047	9.31	0.00	0.00	9.31
3. Police	32055	2.39	0.00	0.00	2.39
4. Supplies & Disposals	32057	0.92	0.00	0.00	0.92
5. Stationery & Printing	32058	2.11	7.24	0.68	10.03
6. Public Works	32059	6.20	166.35	8.01	180.56
7. Other Administrative Services	32070	1.12	36.31	0.97	38.50
Grand Total		**22401.76**	**16042.98**	**704.37**	**39149.11**
Central Assistance for relief against Natural Calamities	—	—	556.05	—	556.05

*Include Rs. 22.35 crores for special Employment Programme.

KASHMIR
Acc. 214048
Dated

CHAPTER 3

FINANCIAL RESOURCES

The approved Plan outlay for 1987-88 was Rs. 44,699 crores. As per the latest estiates, the expenditure for 1987-88 is placed at Rs. 44,792 crores—Rs. 25,701 crores for the Centre, Rs. 717 crores for the Union Territories and Rs. 18,374 crores for the States. The latest estimates thus indicate a marginal increase of Rs. 93 crores over the approved outlay. The detailed scheme of financing the originally approved and the revised Plan outlay for 1987-88 is given in Annexure 3.1. The summary position is indicated in Table 3.1 below :—

TABLE 3.1

Financing of the Plan Outlay for 1987-88—Summary Position

(Rs. crores)

	Annual Plan Estimates			Latest Estimates		
	Centre (including U.Ts.)	States	Total	Centre (including U.Ts.)	States	Total
I. Domestic Resources:						
(i) Balance from Current Revenues at 1984-85 rates (including upgradation grants for capital works)	(—)2608	1009	(—)1599	(—)3264	(—)1010	(—)4274
(ii) Additional Resource Mobilisation	1072	4444*	5516	1195	3709	4904
Total (i+ii)	**(—)1536**	**5453**	**3917**	**(—)2069**	**2699**	**630**
(iii) Contribution of Public Enterprises	5756	(—)514	5242	6437	(—)1223	5214
(iv) Additional Resource Mobilisation by Public Enterprises (net)	1873	934	2807	1535	569	2104
Total (iii+iv)	**7629**	**420**	**8049**	**7972**	**(—)654**	**7318**
(v) Borrowings and Misc. Capital Receipts (net)	18151	5605	23756	19256	7746	27002
II. Net Inflow from Abroad	3689	..	3689	3762	..	3762
III. Deficit Financing	5688	..	5688	6080	..	6080
IV. Aggregate Resources	**33621**	**11478**	**45099**	**35001**	**9791**	**44792**
V. Central assistance for State Plans	(—)7480	7480	..	(—)7469	7469	..
VI. Central assistance to States for Relief from Natural Calamities	(—)400	..	(—)400	(—)1114	1114	..
VII. Resources for the Plan	**25741**	**18958**	**44699**	**26418**	**18374**	**44792**

*Includes combined target of Rs. 2018 crores of additional resource mobilisation by States and their enterprises through fresh measures in 1987-88.

3.2 At 1984-85 rates of taxes, the Centre's balance from current revenues (BCR) shows a deterioration of Rs. 656 crores over the Annual Plan estimates. While there was some buoyancy in the revenue receipts, it has been more than offset by higher non-plan expenditure particularly under interest payments, subsidies, pensions and D.A., etc. During the year, the yield from Centre's additional resource mobilisation measures, net of States' share, amounted to Rs. 1195 crores. Thus, at current rates of taxes, Centre's BCR worked out to (—) Rs. 2069 crores, as against the original estimate of (—) Rs. 1536 crores. The latest estimates of BCR under broad heads alongwith the Annual Plan estimates are shown in Table 3.2.

TABLE 3.2

Balance from Current Revenues of the Centre for 1987-88

(Rs. Crores)

	Annual Plan Estimates	Latest Estimates
I. Revenue Receipts (at 1984-85 rates)		
1. Tax Revenues (Gross).	35,492*	36,389*
2. Less: States' share of Central Taxes	8,853	9,247
3. Tax Revenues (net) (1—2)	**26,639**	**27,142**
4. Non-tax Revenues	8,465**	9,230**
Total I: Revenue Receipts	**35,104**	**36,372**
II. Non-Plan Revenue Expenditure:		
1. Interest Payments	10,650	11,450
2. Defence	12,512	12,000
3. Subsidies	5,445***	6,119***
4. Grants to States and Union Territories	1,689	1,822
5. Grants to Foreign Governments	145	168
6. Border Roads	85	83
7. Other Non-Plan Expenditure	7,186	7994
Total II: Non-Plan Revenue Expenditure	37,712	39,636
III. Balance from Current Revenues(I—II)	(—) 2,608	(—)3,264

*Net of assignment to local bodies in Union Territories.

**Excludes receipts of the Commercial Departments which have been netted on the expenditure side.

***Excludes subsidies on imported fertilizers.

3.3 In the case of States, the balance from current revenues at 1984-85 rates of taxes shows a deterioration of Rs. 2019 crores over the Annual Plan estimate. This deterioration is mainly accounted for by higher non-plan expenditure. Table 3.3 shows the latest estimates of current account balance along with the Annual Plan estimates.

TABLE 3.3

Balance from Current Revenues of the States for 1987-88

(Rs. crores)

	1987-88	
	Annual Plan Estimates	Latest Estimates
I. Revenue Receipts (at 1984-85 rates)		
1. Tax Revenue, including share in Central Taxes	25,503	26,023
2. Non-Tax Revenue	4,548	3,927
3. Grants from Centre, including grants for Centrally Sponsored Schemes, etc.	5,630	5,408
Total I: Revenue Receipts	34,683	35,464
II. Revenue Expenditure		
1. Debt Services	4,864	4,967
2. Other Non-Developmental Expenditure	7,403	7,678
3. Non-Plan Developmental Expenditure	15,338	17,001
4. Outlay on Centrally Sponsored Schemes*	3,727	3,400
5. Cost of additional D.A. and pay revision not included under the above items	2,312	2,317
Total II: Revenue Expenditure	33,674	36,430
III. Balance from Current Revenues (I-II)	1,009	(-)1,010

*Corresponding to Centre's share. Since this represents Plan Outlay at the Centre, it is treated as non-Plan outlay in the case of States to avoid double counting.

3.4 The contribution from public sector enterprises, both at the Centre and in the States taken together at 1984-85 rates of fares, freight charges, etc., is likely to be lower by Rs. 28 crores. While the contribution of Central public sector enterprises has improved by Rs. 681 crores, there is a deterioration of Rs. 709 crores in the contribution of States' enterprises. However, during the year the Central and State public enterprises together would have mobilised net additional resources of the order of Rs. 2104 crores through fresh measures taken during 1985-86, 1986-87 and 1987-88 to finance their Plan outlays.

3.5 The policy of allowing the Central public sector enterprises on a selective basis to raise funds from the market without Government guarantee was continued. As against the Annual Plan estimate of raising Rs. 2001 crores through the issue of bonds, the revised estimates place the receipts at Rs. 2108 crores.

3.6 There has been an increasing reliance on domestic borrowings for financing the Plan as compared to the original estimates. The total domestic borrowings of the Centre, including deficit financing.

have gone up by Rs. 1497 crores. The Centre's recourse to higher borrowings was largely to meet the higher Central Plan expenditure of Rs. 659 crores, to provide additional Central assistance of Rs. 703 crores to the States.

3.7 The Central assistance released to the States during 1987-88 was Rs. 8583 crores. The bulk of the increase has been due to higher Central assistance given for meeting the expenditure on relief from natural calamities.

Annual Plan 1988-89

3.8 The total resources for financing the 1988-89 Annual Plan have been estimated at Rs. 29,485 crores for the Centre including Union Territories and Rs. 20,333 crores for the States. The Annual Plan outlay of the Centre has been fixed at Rs. 28,715 crores which represents an increase of 11.7 per cent over the revised plan outlay for 1987-88. The Union Territories' Plan is fixed at Rs. 770 crores showing a step-up of 7.4 per cent over the revised outlay. The Plan outlay of the States for 1988-89 has been approved at Rs. 20,333 crores, showing a step-up of 10.7 per cent over the revised outlay. Thus, the overall Plan outlay of Rs. 49,818 crores shows an increase of 11.2 per cent over the revised Plan outlay of Rs. 44,792 crores for 1987-88. The detailed scheme of financing the approved Plan outlay is given in Annexure 3.2. The summary position is indicated in Table 3.4.

TABLE 3.4

Financing of the Plan Outlay—1988-89

(Rs. crores)

	Centre (including UTs)	States	Total
1	2	3	4
I. Domestic Resources			
1. Balance from Current Revenues at 1984-85 rates (including upgradation grants for capital works)	(—)5440	(—) 1058	(—)6498
2. Additional Resource Mobilisation by Government	2005	6376*	8381
Total (1+2)	(—)3435	5318	1883
3. Contribution by Public Enterprises	7356	(—)1047	6309
4. Additional Resource Mobilisation by Public Enterprises (net)	2702	1080**	3782
Total (3+4)	10058	33	**10091**
5. Borrowings and Miscellaneous Capital Receipts (net)	19757	6652	26409
II. Net Inflow from Abroad	4351	—	4351
III. Deficit Financing	7484	—	748
IV. Aggregate Resources	38215	12003	50218
V. Assistance for State Plans	(–) 8330	8330	—
VI. Assistance to States for Relief from Natural Calamities	(—)400	—	(—)400
VII. Resources for the Plan	29485	20333	49818

*Includes combined target of Rs. 2588 crores of additional resource mobilisation by States and their enterprises through fresh measures in 1988-89. Also includes Rs. 408 crores of share in additional taxation by the centre.

**Yield from measures adopted in 1985-86 to 1987-88. The combined target of Rs. 2588 crores for State Governments and their enterprises for 1988-89 stands included in Rs. 6376 crores shown against ARM by State Governments.

3.9 It will be seen that domestic resources would finance 76.3 per cent of the total plan outlay. Net inflow from abroad would contribute 8.7 per cent. The balance 15.0 per cent would be met through deficit financing. Brief comments on individual items of financing are given below :

Balance from Current Revenues

3.10 The balance from current revenues of the Centre and the States taken together, after meeting their non-plan revenue expenditure, is estimated at (—) Rs. 6498 crores at 1984-85 rates of taxation. The revenue receipts of the Centre are estimated at Rs. 40,201 crores after providing for transfer to the States of their share in Central taxes. The non-plan expenditure of the Centre is estimated at Rs. 45,641 crores thus indicating a balance of (—) Rs. 5440 crores as against (—) Rs. 3264 crores for 1987-88. The broad details of the estiates for the Centre for 1988-89 are given in Table 3.5.

TABLE 3.5

Balance from Current Revenues of the Centre for 1988-89

(Rs. crores)

	Annual Plan Estimates
1	2
I. Revenue Receipts (at 1984-85 rates):	
1. Tax Revenues (gross)	40,139*
2. Less: States' share of Central taxes	10,254

1	2
3. Tax Revenues (Net) (1-2)	29,885
4. Non-Tax Revenues	10,316**
Total I: Revenue Receipts	40,201
II. Non-Plan Revenue Expenditure:	
1. Interest payments	14,100
2. Defence	13,000
3. Subsidies	7,066***
4. Grants to States and Union Territories	2,164
5. Grants to Foreign Governments	180
6. Border Roads	83
7. Other Non-Plan Expenditure	9,048
Total II Non-Plan Revenue Expenditure	45,641
III. Balance from Current Revenues (I--II)	(—)5440

*Net of assignment to local bodies in Union Territories.

**Excludes receipts of the Commercial Departments which have been netted on the expenditure side.

***Excludes subsidies on imported fertilizers.

3.11 While the overall revenue receipts of the Centre at 1984-85 rates of taxes are likely to rise by about 10.5 per cent over 1987-88 (R.E.), the increase in non-plan expenditure is estimated at 15.15 per cent. The major items accounting for the increase in non-plan revenue expenditure are defence, interest payments and subsidies. These three items alone account for about three-fourths of the Centre's total non-plan revenue expenditure.

3.12 The surplus from current revenues at 1984-85 rates of taxation, including upgradation grants for capital works of all the States taken together for 1988-89 is estimated at (—) Rs. 1058 crores, which shows a marginal deterioration in relation to the latest estimate for 1987-88. The total revenue receipts of the States, including their share in Central taxes, are estimated at Rs. 39,312 crores. The States total non-plan revenue expenditure is estiated at Rs. 40,370 crores. The details of the estimates under broad heads are shown in Table 3.6.

TABLE 3.6

Balance from Current Revenues of the States for 1988-89

(Rs. crores)

	Annual Plan Estimates
1	2
I. Revenue Receipts (at 1984-85 rates)	
1. Tax Revenue including share in Central Taxes	28,800
2. Non-tax Revenue	4,238
3. Grants from Centre, including grants for Centrally Sponsored Schemes, etc.	6,274
Total I: Revenue Receipts	39,312
II. Revenue Expenditure	
1. Debt Services	5,774
2. Other Non-Development Expenditure	7,604
3. Non-Plan Development Expenditure	19,375
4. Outlay on Centrally Sponsored Schemes*	3,937
5. Cost of additional dearness allowance and pay revision not included under the above items	3,680
Total II: Revenue Expenditure	40,370
III. Balance from Current Revenues (I-II)	(—) 1,058

*Corresponding to Centre's share. Since this represents Plan Outlay at the Centre, it is treated as non-Plan outlay in the case of States to avoid double counting.

3.13 The estimates of receipts from State taxes, such as sales tax, State excise duties, tax on motor vehicles and tax on goods and passengers have been made keeping in view the past growth rates and other relevant factors. The tax and non-tax receipts (at 1984-85 rates of taxes, fees, etc.) are expected to rise by about 10.1 per cent. The growth in non-Plan expenditure, net of outlay on Centrally sponsored schemes, has been estimated at 5--7 per cent. In addition, provision has been made for fresh D.A., etc., liability.

Contribution of Public Enterprises

3.14 The contribution of public enterprises, both departmental and non-departmental, in 1988-89 on the basis of 1984-85 rates of fares, tariffs and product prices, is estimated at Rs. 7356 crores in respect of Central enterprises and (—) Rs. 1047 crores in respect of State Electricity Boards and State Road Transport Corporations. Out of the total contribution estimated for Central enterprises, Rs. 5659 crores represent their internal resources and Rs. 1697 crores extra-budgetary resources, excluding foreign commercial borrowings. The unit-wise estimates of internal resources and extra-budgetary resources as well as budgetary support in respect of Central enterprises are given in Annexure 3.3. The estimated contribution of the departmental and non-departmental enterprises is briefly discussed below :—

Railways

3.15 The Railways Plan outlay of Rs. 3850 crores for 1988-89 is expected to be financed to the extent of Rs. 1578 crores by their own internal resources (net), including net additional resource mobilisation of Rs. 746 crores. The Railways would also raise Rs. 800 crores through the issue of public bonds The balance of Rs. 1472 crores would be met through budgetary support from the general revenues. The components of internal resources (gross) include (i) Appropriation from Depreciation Reserve Fund Rs. 1512 crores; (ii) Accident Compensation Safety and Passenger Amenities Fund Rs. 66 crores; (iii) Open line Works Rs. 40 crores and (iv) Development Fund Rs. 28 crores.

Communications :

3.16 The Plan outlay of Rs. 1864 crores for Communications for 1988-89 is expected to be financed to the extent of Rs. 1473 crores from their own internal resources. The Tele-Communications are also expected to mobilise Rs. 100 crores through issue of public bonds. In addition, necessary budgetary support would be forthcoming to finance their Plan outlay.

Other Central Non-Departmental Enterprises

3.17 The contribution of other Central enterprises consisting of depreciation and retained profits and extra-budgetary resources (excluding loans, credits, etc., from abroad) is estimated at Rs. 5501 crores at 1984-85 product prices. A number of units are not generating internal resources to finance their plan outlay and hence continue to depend on budgetary support. An important feature of financing the outlays of the Central enterprises is the use of the mechanism of inter-corporate transfers which are estimated to be of the order of Rs. 579 crores.

3.18 The contribution of State Electricity Boards for the Annual Plan 1988-89 is estimated at (—) Rs. 893 crores after adjusting about Rs. 1644 crores of ARM yield to offset a part of their deterioration in relation to original Seventh Plan estimates. Although revision of tariffs and adjustment of fuel surcharge by the State Electricity Boards in 1985-86, 1986-87 and 1987-88 is expected to yield substantial revenue in 1988-89, a major part of this is estimated to be neutralised by the increase in their working expenses. At current rates, the total contribution of State Electricity Boards is placed at Rs. 15 crores as detailed in Annexure 3.4.

3.19. The overall contribution of the State Road Transport Corporations is estimated at (—) Rs. 157 crores for 1988-89 after adjusting Rs. 265 crores of the yield from fare revisions to offset the deterioration in relation to the Seventh Plan estimates. At current rates the contribution of the State Road Transport Corporations is estimated at Rs. 15 crores as shown in Annexure 3.5.

Market Borrowings :

3.20. The net market borrowings during 1988-89 are estimated at Rs. 9500 crores, viz., Rs. 7000 crores for the Centre and Rs. 2500 crores for the States and their enterprises. The estimates of market borrowings for the Annual Plan 1988-89 have been made taking into account the rate of growth of bank deposits, Statutory Liquidity Ratio (SLR) for the commercial banks and also the estimated net accretion to the investible resources of the Life Insurance Corporation of India and Employees' Provident Fund.

Small Savings :

3.21 The net collection of small savings during 1988-89 is estimated at Rs. 4600 crores, out of which the share of the Central Government and Union Territories would be Rs. 1150 crores. The balance amount of Rs. 3450 crores would be available for financing the State Plans.

Provident Funds

3.22. On the basis of past trend, the net accretion to the Provident Fund of the Central Government is estimated at Rs. 1000 crores and that to State Provident Funds at Rs. 1295 crores.

Term-Loans from Financial Institutions

3.23 For financing the States' Annual Plan 1988-89, an amount of Rs. 1151 crores by way of term-loans is estimated to be available from the financial institutions. The Life Insurance Corporation of India (LIC) and the General Insurance Corporation (GIC) would provide term-loans to finance outlays in respect of socially-oriented sectors, such as housing, water supply and sewerage, transport and power. Besides, the Industrial Development Bank of India will extend loan facility under its Bill Rediscounting Scheme to State Electricity Boards and State Road Transport Corporations. The Rural Electrification Corporation and the National Bank of Agriculture and Rural Development will continue to extend assistance to the States for the rural electrification programmes and for participation in the share capital of agricultural cooperatives respectively.

Miscellaneous Capital Receipts (Net)

3.24 The net miscellaneous capital receipts of the Centre are estimated at Rs. 8568 crores. The receipts include recovery of loans and advances, special deposits of LIC, GIC, etc. and other inflows under special deposits. The non-plan capital disbursements include loans and advances to the State Governments and Union Territories, public sector undertakings, Government employees, agriculturists and foreign Governments. The net miscellaneous capital receipts of the States for 1988-89 are estimated at (—) Rs. 1744 crores.

Additional Resource Mobilisation

3.25 The additional resource mobilisation measures taken by the Central Government and its enterprises during 1985-86, 1986-87 and 1987-88 are expected to yield Rs. 2948 crores in 1988-89. The fresh measures adopted by the Central Government for 1988-89 are expected to give a net yield (i.e. exclusive of States' share) of Rs. 587 crores as shown below :—

	(Rs. crores)
(i) Corporation Tax	49
(ii) Income Tax	104
(iii) Customs	307
(iv) Union Excise Duties	117
(v) Wealth Tax	10
Total	587

3.26 The additional resource mobilisation measures adopted by the State Governments and their undertakings in 1985-86, 1986-87 and 1987-83 are expected to yield Rs. 6370 crores (gross) in 1988-89. After meeting part of the anticipated deterioraion in the normal contribution by State Electricity Boards and State Road Transport Corporations at 1984-85 tarifis and fares, the net yield available for financing the Plan is estimated at Rs. 4460 crores. The budgetary measures of the State Governments would yield Rs. 3380 crores while the net yield from increase in electricity tariffs and bus fares is estimated at Rs. 1080 crores. Besides, the State Governments have sation of Rs. 2588 crores in 1988-89. The State-wise targets are shown in Annexure 3.6.

Issue of Public Bonds

3.27. As in the previous year, the Central public undertakings, including Railways and Tele-Communications,have been allowed to raise funds through issue of public bonds for financing part of their Plan outlays. It is estimated that an amount of Rs. 2039 crores would be raised through fresh issue of bonds by selected enterprises.

Net Inflow from Abroad

3.28 The net inflow from abroad in the form of grants and loans to the Central Government is estimated at Rs. 3734 crores. In addition, an amount of Rs. 617 crores is expected to be raised by the public sector undertakings through commercial borrowings, foreign equity participation, etc., thus taking the total net inflow from abroad to Rs. 4351 crores.

Deficit Financing

3.29 The deficit for 1988-89 is estimated at Rs. 7484 crores. The State Plans have been fully funded leaving no gap in resources.

Central Assistance

3.30 The Central assistance allocated for State Plans for 1988-89 amounts to Rs. 8330 crores as shown in Table 3.7.

TABLE 3.7

Central Assistance for 1988-89

	(Rs. crores)
(i) Normal Central assistance (net)	6,727
(ii) Assistance for externally aided projects	942
(iii) Tribal Sub-Plan	185
(iv) Hill Areas	221
(v) North Eastern Council Plan	155
(vi) Border Area Programme	59
(vii) Other Special Area Ppogramme	41
Total :	8,330

Annexure 3.1

Estimates of Financial Resources for the Annual Plan 1987-88

(Rs. crores)

	Annual Plan Estimates			Latest Estimates		
	Centre (including U.Ts)	States	Total	Centre (including U.Ts)	States	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
I. Plan Outlay	25741[1]	18958	44699	26418	18374	44792
Financing of the Plan						
II. Domestic Resources at 1984-85 rates of taxes, tariffs and fares						
1. Balance from Current Revenues	(—)2608	783	(—)1825	(—)3264	(—)1241	(—)4505
2. Upgradation grants for capital works . .	..	226	226	..	231	231
3. Contribution of Public Enterprises						
(a) *Centre*						
(i) Railways	784	..	784	1112	..	1112
(ii) Tele-Communication	897	..	897	1027	..	1027
(iii) Other Central Enterprises						
—Internal resources	2585	..	2585	2318	..	2318
—Extra-Budgetary resources (domestic)	1490	..	1490	1980	..	1980
Total (a)	**5756**	..	**5756**	**6437**	..	**6437**
(b) *States*						
(i) State Electricity Boards . . .	..	(—)408[2]	(—)408[2]	..	(—)1079[2]	(—)1079
(ii) State Road Transport Corporations	..	(—)109	(—)109	..	(—)147	(—)147
(iii) Other State Enterprises . .	..	(+)3	(+)3	..	(+)3	(+)3
Total (b)	..	**(—)514**	**(—)514**	..	**(—)1223**	**(—)12234**
Total (a+b)	**5756**	**(—)514**	**5242**	**6437**	**(—)1223**	**5214**
4. Issue of Bonds by public Enterprises . .	2001[3]	..	2001[3]	2108	..	2108
5. Market Borrowings of the Government/Public Enterprises and Local Bodies	6300	2071	8371	7000	2124	9124
6. Small Savings	2200	3200	5400	1000	3200	4200
7. Provident Funds	635	1054	1689	900	1170	2070
8. Term Loans from Financial Institutions						
(a) Life Insurance Corpn. of India/General Insurance Corpn.	..	484[4]	484[4]	..	501[4]	5014
(b) Rural Electrification Corporation .	..	197	197	..	212	212
(c) National Bank for Agricultural & Rural Development	..	43	43	..	41	41
(d) Industrial Development Bank of India	..	228	228	..	275	275
Total—8	..	**952**	**952**	..	**1029**	**1029**
9. Misc. Capital Receipts (Net)	7015	(—)1672	5343	8248	223	8471
Total—II	**21299**	6100	27399	**22429**	**5513**	**27942**

Annexure 3.1—(*Contd.*)

(Rs. crores)

	Annual Plan Estimates			Latest Estimates		
	Centre (including U.T.s)	States	Total	Centre (including U.Ts.)	States	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
III. Additional Resource Mobilisation						
(1) **1985-86 Measures**						
(a) *Centre*						
(i) Central Government	391	170	561	454	168	622
(ii) Central Public Enterprises	662	—	662	790	—	790
Total (a)	**1053**	**170**	**1223**	**1244**	**168**	**1412**
(b) *States*						
(i) State Governments	—	1215	1215	—	1174	1174
(ii) State Public Enterprises	—	650	650	—	276	276
Total (b)	—	**1865**	**1865**	—	**1450**	**1450**
Total (a+b)	**1053**	**2035**	**3088**	**1244**	**1618**	**2862**
(2) **1986-87 Measures**						
(a) *Centre*						
(i) Central Government	410	10	420	459	10	469
(ii) Central Public Enterprises	1211	—	1211	647	—	647
Total (a)	**1621**	**10**	**1631**	**1106**	**10**	**1116**
(b) *States*						
(i) State Governments	—	858	858	—	734	734
(ii) State Public Enterprises	—	284	284	—	176	176
Total (b)	—	**1142**	**1142**	—	**910**	**910**
Total (a+b)	**1621**	**1152**	**2773**	**1106**	**920**	**2026**
(3) **1987-88 Measures**						
(a) *Centre*						
(i) Central Government	271	173	444	282	173	455
(ii) Central Public Enterprises	—	—	—	98	—	98
Total (a)	**271**	**173**	**444**	**380**	**173**	**553**
(b) *States*						
(i) State Governments }	—	2018	2018	—	1450	1450
(ii) State Public Enterprises }				—	117	117
Total (b)	—	**2018**	**2018**	—	**1567**	**1567**
Total (a+b)	**271**	**2191**	**2462**	**380**	**1740**	**2120**
Total—III	**2945**	**5378**	**8323**	**2730**	**4278**	**7008**
IV. Total Domestic Resources at Current Rates	**24244**	**11478**	**35722**	**25159**	**9791**	**34950**
V. Net Inflow from Abroad	3689*	..	3689*	3762**	..	3762**
VI. Budgetary Deficit	5688	..	5688	6080	..	6080
VII. Aggregate Resources	**33621**	**11478**	**45099**	**35001**	**9791**	**44792**

Annexure 3.1 (*Contd.*)

(Rs. Crores)

	Annual Plan Estimates			Latest Estimates		
	Centre (includng U.Ts.)	States	Total	Centre including U.Ts.)	States	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
VIII. Assistance for State Plans						
(a) State Plans (normal)	(—)6340	6340	..	(—)6678	6678	..
(b) Adjustment of Advance Plan assistance	200	(—)200	..	200	(—)200	..
(c) Adjustment of relief assistance	173	(—)173	..	173	(—)173	..
(d) Net Normal assistance	(—)5967	5967	..	(—)6305	6305	..
(e) Externally aided projects	(—)921	921	..	(—)603	603	..
(f) **Total Central Assistance for State Plans**	**(—)6888[5]**	**6888[5]**	..	**(—)6908[5]**	**6908[5]**	..
(g) *Central Assistance for Area Programmes*						
(i) Hill Areas	(—)204	204	..	(—)204	204	..
(ii) Tribal Sub-Plans	(—)169	169	..	(—)169	169	..
(iii) North East Council Plan	(—)140	140	..	(—)125	125	..
(iv) Border Area Programmes	(—)42	42	..	(—)42	42	..
(v) Other Special area programmes	(—)37	37	..	(—)21	21	..
Total (g)	**(—)592**	**592**	..	**(—)561**	**561**	..
(h) Provision of central assistance for relief against natural calamities	(—)400	..	(—)400	(—)1114***	1114***	..
Total—VIII	**(—)7880**	**7480**	**(—)400**	**(—)8583**	**8583**	..
IX. Resources available for the Plan (VII+VIII)	**25741**	**18958**	**44699**	**26418**	**18374**	**44792**

[1]/ Excludes Arunachal Pradesh, Mizoram and Goa which are included under States.

[2]/ Includes resources of Karnataka Power Corporation.

[3]/ Includes Rs. 420 crores of surplus carried forward from the previous year and Rs. 81 crores of borrowing by D.V.C.

[4]/ Includes Rs. 25 crores of L.I.C. loans to N.E.C.

[5]/ Includes development loan/grant assistance for Punjab and Haryana.

*Includes Rs. 489 crores of commercial borrowings, foreign equity participation etc. of public sector undertakings.

**Includes Rs. 577 crores of commercial borrowings, foreign equity participation etc. of public sector undertakings.

*** In addition, an amount of Rs. 107.07 crores was provided to the States on account of supply of foodgrains for drought relief.

Annexure 3.2

Estimates of Financial Resources for the Annual Plan 1988-89

(Rs. Crores)

	1988-89 (Annual Plan Estimates)		
	Centre (including U.Ts.)	States	Total
(1)	(2)	(3)	(4)
I. Plan Outlay	**29485**	**20333**	**49818**
Financing of the Plan			
II. Domestic Resources at 1984-85 rates of taxes, tariffs & fares			
1. Balance from Current Revenues	(—)5440	(—)1376	(—)6816
2. Upgradation grants for capital works	..	318	318
3. Contribution of Public Enterprises			
(a) *Centre*			
(i) Railways	832	..	832
(ii) Tele-Communication	1023*	..	1023*
(iii) Other Central Enterprises			
—Internal resources	3804	..	3804
—Extra-Budgetary resources (domestic)	1697	..	1697
Total (a)	**7356**	..	**7356**
(b) *States*			
(i) State Electricity Boards	..	(—)893[1]	(—)893[1]
(ii) State Road Transport Corporations	..	(—)157	(—)157
(iii) Other State Enterprises	..	(+)3	(+)3
Total (b)	..	(—)1047	(—)1047
Total (a+b)	**7356**	**(—)1047**	**6309**
4. Issue of Bonds by Public Enterprises	2039	..	2039
5. Market Borrowings of the Government/ Public Enterprises and Local Bodies	7000	2500	9500
6. Small Savings	1150	3450	4600
7. Provident Funds	1000	1295	2295
8. Term loans from Financial Institutions			
(a) Life Insurance Corporation of India/General Insurance Corporation	..	568[2]	568[2]
(b) Rural Electrification Corporation	..	223	223
(c) National Bank for Agricultural & Rural Development	..	48	48
(d) Industrial Development Bank of India	..	312	312
Total—8	..	**1151**	**1151**
9. Misc. Capital Receipts (Net)	8568	(—)1744	6824
Total—II	**21673**	**4547**	**26220**

Annexure 3.2 (*Contd.*)

(Rs. crores)

	1988-89 (Annual Plan estimates)		
	Centre (including U.Ts.)	States	Total
(1)	(2)	(3)	(4)
III. Additional Resource Mobilisation			
1. 1985-86 Measures			
(a) *Centre* (i) Central Government	511	182	693
(ii) Central Public Enterprises	735	..	735
Total (a)	**1246**	**182**	**1428**
(b) *States*			
(i) State Governments	...	1292	1292
(ii) State Public Enterprises	...	474	474
Total (b)	...	**1766**	**1766**
Total (a+b)	**1246**	**1948**	**3194**
2. 1986-87 Measures			
(a) *Centre*			
(i) Central Government	522	11	533
(ii) Central Public Enterprises	679	...	679
Total (a)	**1201**	**11**	**1212**
(b) *States*			
(i) State Governments	...	809	809
(ii) State Public Enterprises	...	295	295
Total(b)	...	**1104**	**1104**
Total (a+b)	**1201**	**1115**	**2316**
3. 1987-88 Measures			
(a) *Centre*			
(i) Central Government	385	187	572
(ii) Central Public Enterprises	116	—	116
Total (a)	**501**	**187**	**688**
(b) *States*			
(i) State Governments	...	1279	1279
(ii) State Public Enterprises	...	311	311
Total (b)	...	**1590**	**1590**
Total (a+b)	**501**	**1777**	**2278**

Annexure 3.2 (*Contd.*)

(Rs. crores)

	1938-89 (Annual Plan Estimates		
	Centre (including U.T.s)	States	Total
(1)	(2)	(3)	(4)
4. 1988-89 Measures			
(a) *Centre*			
(i) Central Government	**587**	28	615
(ii) Central Public Enterprises	1172	...	1172
Total (a)	**1759**	**28**	**1787**
(b) *States*			
(i) State Governments (ii) State Public Enterprises	...	2588	2588
Total (b)	...	**2588**	**2588**
Total (a+b)	**1759**	**2616**	**4375**
Total-III	**4707**	**7456**	**12163**
IV. Total Domestic Resources at Current Rates	**26380**	**12003**	**38383**
V. Net Inflow from abroad	4351[3]	....	4351[3]
VI. Budgetary Deficit	7484	...	7484
VII. Aggregate Resources	**38215**	**12003**	**50218**
VIII. Assistance for State Plans			
(a) State Plans (normal)	(—)7189	7189	...
(b) Adjustment of Advance Plan assistance	225	(—)225	...
(c) Adjustment of relief assistance	237	(—)237	...
(d) Net normal assistance	(—)6727	6727	...
(e) Externally aided projects	(—)942	942	...
(f) **Total Central Assistance for State Plans**	(—)7669[4]	7669[4]	...
(g) *Central Assistance for Area Programmes*			
(i) Hill Areas	(—)221	221	...
(ii) Tribal Sub-Plans	(—)185	185	...
(iii) North East Council Plan	(—)155	155	...
(iv) Border Area Programmes	(—)59	59	...
(v) Other Special area programmes	(—)41	41	...
Total (g)	(—)661	661	...
(h) Provision of Central assistance for relief against natural calamities	(—)400	...	(—)400
Total VIII	(—)8730	8330	**(—)400**
IX. Resources available for the Plan (VII+VIII)	**29485**	**20333**	**49818**

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[1] Includes resources of the Karnataka Power Corporation and U.P.R.V.U.N.

[2] Includes Rs. 30 crores of LIC loans to N.E.C.

[3] Includes Rs. 617 crores for Central Enterprises.

[4] Includes development loans.

* Includes Rs. 50 crores of inter-corporate transfers.

Plan Outlay of Central Enterprises and its Financing During 1988-89

(Rs. Crores)

No. Ministry/Deptt./Project	Annual Plan Outlay	Financed by		
		Internal Resources	Extra Budgetary Resources@	Budgetary Support
(1)	(2)	(3)	(4)	(5)
I. Agriculture	128.61	0.00	1.00	127.61
1. State Farms Corporation	4.04	0.00	0.00	4.04
2. National Seeds Corporation	0.21	0.00	0.00	0.21
3. Oil Palm India Ltd.	1.00	0.00	0.00	1.00
4. Slaughter House Corporation	0.20	0.00	0.00	0.20
5. National Dairy Devep. Board	50.00	0.00	0.00	50.00
6. National Coop. Devep. Board	72.16	0.00	0.00	72.16
7. Agriculture Research & Edu (Foreign Aided Project)	1.00	0.00	1.00a	0.00
II. Atomic Energy	503.29	83.07	173.93	246.29
1. Electronics Corpn. Of India Ltd.	16.43	6.50	2.93a, i	7.00
2. Indian Rare Earths Ltd.	9.47	6.57	0.00	2.90
3. Uranium Corpn. of India	16 07	0.00	0.00	16.07
4. Nuclear Power Corpn.	461.32	70.00	171.00b	220.32
III. Chemicals & Petrochemicals	443.00	143.22	186.78	113.00
1. Hindustan Org. Chemicals Ltd.	15.00	15.00	0.00	0.00
2. Indian Petrochemicals Corp. Ltd.	403.46	128.12	186.78abh	88.56
3. Indian Drugs & Pharmaceuticals	9.50	0.00	0.00	9.50
4. Hindustan Antibiotics Ltd	3.00	0.00	0.00	3.00
5. Bengal Chemicals & Pharma. Ltd.	2.39	0.00	0.00	2.39
6. Hindustan Insecticides Ltd.	4.25	0.00	0.00	4.25
7. Smith Stani-Street Pharma. Ltd.	1.50	0.00	0.00	1.50
8. Bengal Immunity Co. Ltd.,	3.80	0.00	0.00	3.80
9. Petrofils Corporation Ltd.	0.10	0.10	0.00	0.00
IV. Civil Aviation	382.70	302.29	70.71	9.70
1. Air India	130.35	128.70	1.65g	0.00
2. Indian Airlines	138.65	85.59	53.06a,g	0.00
3. International Airport Authority of India	48.00	48.00	0.00	0.00
4. Vayudoot	9.70	0.00	0.00	9.70
5. Pawanhans Ltd.	10.00	10.00	0.00	0.00
6. National Airport Authority	46.00	30.00	16.00g	0.00
V. Civil Supplies	2.00	0.00	0.00	2.00
1. National Cooperative Development Corporation	2.00	0.00	0.00	2.00
VI Coal	**1994.00**	**150.00**	**320.00**	**1524.00**
1. Neyveli Lignite Corporation	535.00	60.00	220.00b,g	255.00
2. Coal India Ltd	1314.00	70.00	100.00g	1144.00
3. Singareni Collieries Ltd.	145.00	20.00	0.00	125.00

@Includes issue of bonds and external borrowings which are included under items II-4 and V in Annexure 3.2

Annexure 3.3-(*contd.*)

(Rs. Crores

No. Ministry/Deptt/Project	Annual Plan outlay	Financed by		
		Internal Resources	Extra Budgetary Resources	Budgetary Support
(1)	(2)	(3)	(4)	(5)
VII Commerce	**8.64**	**3.35**	**5.28**	**0.01**
1. Tea Trading Corn. of India	0.01	0.00	0.00	0.01
2. Mica Trading Corporation	5.28	0.00	5.28g	0.00
3. Coffee Board	0.55	0.55	0.00	0.00
4. Tea Board	0.45	0.45	0.00	0.00
5. Rubber Board	0.10	0.10	0.00	0.00
6. Tobacco Board	1.95	1.95	0.00	0.00
7. Spices Board	0.30	0.30	0.00	0.00
VIII Communications	**1864.37**	**1473.12**	**150.00**	**241.25**
1. Tele-Communication	1294.00	904.35	150.00 b,g	239.65
2. Mahanagar Telephone Nigam Ltd.	400.00	400.00	0.00	0.00
3. Hindustan Teleprinters Ltd.	2.82	1.22	0.00	1.60
4. Indin Telephone Industries	100.00	100.00	0.00	0.00
5. T.C.I.L.	0.00	0.00	0.00	0.00
6. Videsh Sanchar Nigam Ltd.	67.55	67.55	0.00	0.00
IX Economic Affairs	79.95	0.00	0.00	79.95
1. Indian Security Press, (Nasik)	12.00	0.00	0.00	12.00
2. Currency Note Press, (Nasik)	20.00	0.00	0.00	20.00
3. Bank Note Press, (Devas)	10.00	0.00	0.00	10.00
4. Indian Government Mints	18.00	0.00	0.00	18.00
5. Security Paper Mill, (Hoshangabad)	1.00	0.00	0.00	1.00
6. Security Printing Press	3.95	0.00	0.00	3.95
7. New Note Presses	15.00	0.00	0.00	15.00
X Electronics	24.00	9.80	8.70	5.50
1. Computer Maintenance Corpn.	14.42	5.42	6.00 i	3.00
2. Electronic Technology & Trade Corp.	1.38	0.88	0.00	0.50
3. Semi Conductor Complex Ltd.	4.00	2.00	0.00	2.00
4. Society for Applied Microwave Electronics	1.50	1.50	0.00	0.00
5. Software Export Promotion Programme	2.70	0.00	2.70 i	00.0
XI Family Welfare	0.01	0.00	0.00	0.01
1. Hindustan Latex Ltd.	0.01	0.00	0.00	0.01
XII Fertilizers	**652.50**	**190.10**	**145.90**	**316.50**
1. Fertilizer & Chemicals (T) Ltd.	100.00	0.00	30.00g	70.00
2. Fertilizers Corpn of India Ltd..	32.00	0.00	0.00	32.00
3. Hindustan Fertilizers Corporation Ltd.	60.00	0.00	0.00	60.00
4. National Fertilizers Ltd.	162.00	125.60	0.00	36.40
5. Rashtriya Chemicals & Fertilizers Ltd.	42.00	42.00	0.00	0.00
6. Project and Development (India) Ltd.	13.00	0.00	0.00	13.00
7. Pyrites, Phosphates & Chemicals Ltd.	36.50	1.50	0.00	35.00
8. Paradeep Phosphates Ltd.	72.00	0.00	30.00 g	42.00
9. Madras Fertilizers Ltd.	12.00	0.00	0.00	12.00
10. KRIBHCO (Hazira)	30.00	0.00	13.90 f	16.10
11. IFFCO (Anola)	93.00	21.00	72.00 a,f	0.00

Annexure 3.3 (contd.)

(Rs. Crores)

No. Ministry/Deptt/Project.	Annual Plan Outlay	Financed by: Internal Resources	Financed by: Extra Budgetary Resources	Financed by: Budgetary Support
(1)	(2)	(3)	(4)	(5)
XIII Food	55.65	24.75	2 00	28 90
1. Central Ware Housing Corpn.	24.00	24.00	0.00	0.00
2. Modern Food Industries (I) Ltd.	3.90	0.75	2.00 f	1.15
3. Food Corporation of India	27.75	0.00	0.00	27.75
XIV Health	0.06	0.00	0.00	0.06
1. Indian Medicine Pharmaceutical Corporation Ltd.	0.05	0.00	0.00	0.05
2. Hospitals Services Consultancy Corporation	0.01	0.00	0.00	0.01
XV Industrial Development	6.59	0.59	0.00	6.00
1. National Small Industries Corporation Ltd.	6.00	0.00	0.00	6.00
2. National Institute of Designs	0.27	0.27	0.00	0.00
3. Indian Plywood Research Association	0.02	0.02	0.00	0.00
4. Indian Rubber Manufacturers Association	0.30	0.30	0.00	0.00
XVI Information and Broadcasting	123.81	122.00	0.00	1.81
1. National Film Development Corpn.	3.81	2.00	0.00	1.81
2. Akashwani & Doordarshan	120.00	120.00	0.00	0.00
XVII Mines	259.61	22.00	11.00	226.61
1. Hindustan Copper Ltd.	35.00	0.00	6.00 a	29.00
2. Hindustan Zinc Ltd.	53.50	15.00	0.00	38.50
3. Bharat Gold Mines Ltd.	8.00	0.00	0.00	8.00
4. Bharat Aluminium Co.	49.50	0.00	0.00	49.50
5. National Aluminium Co.	98.50	0.00	0.00	98.50
6. Mineral Exploration Corpn Ltd.	10.00	7.00	0.00	3.00
7. I.BM.	1.00	0.00	1.00 a	0.00
8. Sikkim Mining Corporation	0.11	0.00	0.00	0.11
9. J.L. Nehru Aluminium Research & Development Centre	4.00	0.00	4.00 a, i	0.00
XVIII Petroleum and Natural Gas	3369.56	2935.67	295.69	138.20
1. Oil and Natural Gas Commission	2350.00	2250.00	0.00	100.00
2. Oil India Ltd.	225.00	199.00	0.00	26.00
3. Indian Oil Corpn (Pet) }	249.80	249.68	0.00	0.00
4. Indian Oil Corpn (Eng.) }		0.12	0.00	0.00
5. Hindustan Petroleum Corporation Ltd. (pet) }	86.14	58.44	20.00 b	3.50
6. Hindustan Petroleum Corporation Ltd. (Eng.) }		4.20		
7. Bharat Petroleum Corpn Ltd. (Pet) }	97.77	94.07	0.00	3.50
8. Bharat Petroleum Corpn Ltd. (Eng) }		0.20		
9. Lubrizole India Ltd.	4.86	4.86	0.60	0.00
10. Engineers India Ltd.	4.00	4.00	0.00	0.00
11. Indo-Burma Petroleum Ltd.	13.00	1.08	11.92 i	0.00
12. Balmer Lawrie Co Ltd.	5.00	0.05	4.95 h	0.00
13. Gas Authority of India	270.00	47.00	218.00 a,g	5.00
14. Bieco-Lawrie & Co. Ltd.	0.20	0.00	0.00	0.20

Annexure 3.3 (*contd.*)

(Rs. Crores)

No.	Ministry/Deptt/Projects	Annual Plan Outlay	Financed by		
			Internal Resources	Extra Budgetary Resources.	Budgetary Support
(1)		(2)	G(3)	(4)	(5)
15.	Madras Refineries Ltd (Pet)	8.95	7.45	0.87 d	0.00
16.	Madras Refineries Ltd (Eng)		0.00	0.63 d	0.00
17.	Cochin Refineries Ltd. (Pet)	36.39	0.00	10.53 h	0.00
18.	Cochin Refineris Ltd. (Eng.)		0.00	25.86 i	0.00
19.	Bongaigaon Refineries (Pet)	18.45	0.10	0.00	0.00
20.	Bongaingaon Refineries (Eng.)		15.42	2.93 i	0.00
XIX	**Posts**	**50.00**	**0.00**	**0.00**	50.00
1.	**Postal Department**	**50.00**	**0.00**	0.00	50.00
XX	**Power**	**2960.94**	**433.00**	**1342.00**	**1185.94**
1.	Damodar Valley Corporation	160.00	85.00	75.00 a,b	0.00
2.	National Thermal Power Corpn.	2180.34	282.00	917.00 b,g	981.34
3.	National Project Construction Corporation	6.60	1.00	0.00	5.60
4.	National Hydro-Electric Power Corporation	444.00	65.00	250.00 a,b	129.00
5.	North-eastern Electric Power Corporation	45.00	0.00	25.00 g	20.00
6.	Power Finance Corporation	75.00	0.00	75.00 i	0.00
7.	Nathpa Jhakri Power Corpn.	50.00	0.00	0.00	50.00
XXI.	**Public Enterprises**	**521.54**	172.49	123.51	**225.54**
1.	Bharat Heavy Electricals Ltd.	90.00	90.00	0.00	0.00
2.	Scooters India Ltd.	0.20	0.00	0.00	0.20
3.	H.M.T. Ltd.	28.61	15.06	13.55d	0.00
4.	Heavy Engineering Corporation	12.00	0.00	0.00	12.00
5.	Mining & Allied Machinery Corpn.	4.20	0.00	0.00	4.20
6.	Maruti Udyog Ltd.	55.00	37.37	17.63 i	0.00
7.	Hindustan Paper Corporation Ltd.	67.55	0.00	0.00	67.55
8.	National Newsprint and Paper Mills Ltd.	16.00	1.00	0.00	15.00
9.	Bharat Opthalmic Glass Ltd.	1.40	0.00	0.00	1.40
10.	Tannery & Footwear Corporation	1.00	0.00	0.00	1.00
11.	Hindustan Salts Ltd.	0.75	0.50	0.00	0.25
12.	Bharat Leather Corporation	0.50	0.00	0.00	0.50
13.	National Instruments Ltd..	1.25	0.00	0.00	1.25
14.	Cycle Corporation of India	0.25	0.00	0.00	0.25
15.	Tyre Corporation of India	9.00	0.00	0.00	9.00
16.	Rehabilitation Industries Corpn.	1.00	0.00	0.00	1.00
17.	Praga Tools Ltd.	3.61	1.61	0.00	2.00
18.	Bharat Yantra Nigam Ltd.	17.20	2.00	0.00	15.20
19.	Bharat Bhari Udyog Nigam Ltd.	26.67	3.62	0.00	23.05
20.	Engineering Projects India Ltd.	0.10	0.00	0.00	0.10
21.	Cement Corporation of India	105.00	0.00	41.00 f, g	64.00
22.	Hindustan Photo Films Manufacturing Company Ltd.	29.00	8.70	16.50b	3.80
23.	Instrumentation Ltd.	5.54	2.00	0.00	3.54
24.	Hindustan Cables Ltd:	35.00	5.00	30.00b	0.00
25.	National Bicycle Corporation	0.25	0.00	0.00	0.25
26.	Andrew Yule & Company.	10.46	5.63	4.83 f	0.00

Annexure 3.3 (Contd.)

(Rs. Crores)

No.	Ministry/Deptt./Project	Annual Plan Outlay	Financed by		
			Internal Resources	Extra Budgetary Resources	Budgetary Support
	(1)	(2)	(3)	(4)	(5)
XXII	**Railways**	**3850.00**	**1578.00**	**800.00**	**1472.00**
	Railways	3850.00	1578.00	800.00b	1472.00
2.	Rail India Technical Service	0.00	0.00	0.00	0.00
3.	India Railways Construction Company Ltd.	0.00	0.00	0.00	0.00
XXIII	**Scientific and Industrial Research**	**11.50**	**1.50**	**0.00**	**10.00**
1.	Central Electronics Ltd.	4.00	0.00	0.00	4.00
2.	C.D.O.T.	1.00	1.00	0.00	0.00
3.	N.C.S.T.	0.50	0.50	0.00	0.00
4.	National Research Development Corpn.	0.50	0.00	0.00	0.50
5.	Joint Venture	5.50	0.00	0.00	5.50
XXIV	**Social Welfare**	**0.00**	**0.00**	**0.00**	**0.00**
1.	Artificial Limbs Manufacturing Corp.	0.00	0.00	0.00	0.00
XXV	**Steel**	**1556.46**	**499.50**	**415.50**	**641.46**
1.	Rashtriya Ispat Nigam (Vizag Steel)	640.00	0.00	50.00a	590.00
2.	Sponge Iron India Ltd.	2.15	0.00	0.00	2.15
3.	Bharat Refractories Ltd.	7.00	0.00	0.00	7.00
4.	Metallurgical & Engineering Consultants (India) Ltd.	1.50	1.50	0.00	0.00
5.	Metal Scrap Trade Corporation Ltd.	3.50	3.50	0.00	0.00
6.	Kudremukh Iron Ore Company Ltd.	5.00	5.00	0.00	0.00
7.	National Mineral Development Corpn.	26.21	0.00	0.00	26.21
8.	Manganese Ore India Ltd.	4.75	0.00	0.00	4.75
9.	Steel Authority of India Ltd.	855.00	487.50	365.50d, e	2.00
10.	Vijay Nagar Steel Ltd.	1.00	0.00	0.00	1.00
11.	Neelachal Ispat Nigam Ltd.	0.35	0.00	0.00	0.35
12.	Hindustan Steel Works Construction	8.00	2.00	0.00	6.00
13.	Bird Group & Companies	2.00	0.00	0.00	2.00
XXVI	**Surface Transport**	**777.33**	**162.88**	**270.12**	**344.33**
1.	Hindustan Shipyard Ltd.	8.00	0.00	0.00	8.00
2.	Cochin Shipyard Ltd.	6.40	0.00	0.00	6.40
3.	Dredging Corporation of India	38.90	38.90	0.00	0.00
4.	Shipping Corporation of India	223.56	29.00	99.00a	95.56
5.	Central Inland Water Transport Corp	25.00	0.00	0.00	25.00
6.	Delhi Transport Corporation	21.00	0.00	0.00	21.00
7.	Hooghly Dock & ports Engineering company Ltd.	2.10	0.00	0.00	2.10
8.	Ship Repair Facility Centre	2.50	2.50	0.00	0.00
9.	*Port Trust etc.*	449.87	92.48	171.12	186.27
	(i) Bombay Port Trust	34.23	34.23	0.00	0.00
	(ii) Calcutta Port Trust	20.17	0.00	0.00	20.17
	(iii) Haldia Dock	26.03	9.00	0.00	17.03

Annexure 3.3 (*Contd.*)

(Rs. Crores)

No.	Ministry/Deptt./Project	Annual Plan Outlay	Financed by		
			Internal Resources	Extra Budgetary Resources	Budgetary Support
	(1)	(2)	(3)	(4)	(5)
	(iv) Madras Port Trust	17.18	17.18	0.00	0.00
	(v) Marmogoa Port	5.05	5.05	0.00	0.00
	(vi) Nhavasheva Port	280.06	0.00	166.12f, g	113.94
	(vii) New Kandla Port Trust	8.83	8.83	0.00	0.00
	(viii) New Mangalore Port	4.19	4.19	0.00	0.00
	(ix) Tuticorin Port	5.47	4.00	0.00	1.47
	(x) Vishakapatnam Port	14.60	10.00	0.00	4.60
	(xi) Cochin Port Trust	30.11	0.00	5.00f	25.11
	(xii) Paradeep Port Trust	3.95	0.00	0.00	3.95
XXVII	**Textiles**	**134.10**	**0.00**	**81.00**	**53.10**
1.	National Textile Corporation	108.00	0.00	80.00f	28.00
2.	British India Corporation	17.00	0.00	0.00	17.00
3.	National Jute Manufacturing Corpn	4.12	0.00	1.00f	3.12
4.	National Handloom Devp. Corpn.	1.25	0.00	0.00	1.25
5.	National Cooperative Devp. Corpn.	3.73	0.00	0.00	3.7
XXVIII	**Tourism**	**11.52**	**4.00**	**0.00**	**7.52**
1.	Hotel Corporation of India	0.00	0.00	0.00	0.00
2.	I.T.D.C.	11.50	4.00	0.00	7.50
3.	Tourist Finance Corporation	0.02	0.00	0.00	0.02
XXIX	**Urban Development**	**20.11**	**0.00**	**0.00**	**20.11**
1.	N.B.C.C.	0.00	0.00	0.00	0.00
2.	Hindustan Pre-fab Ltd.	0.35	0.00	0.00	0.35d
3.	H.U.D.C.O.	19.75	0.00	0.00	19.75
4.	National Housing Bank	0.01	0.00	0.00	0.01
XXX	**Non Conventional Energy Resources**	**2.50**	**0.00**	**0.00**	**2.50**
	Indian Renewable Energy Devp. Agency	2.50	0.00	0.00	2.50
	Grand Total	**19794.35**	**8311.33**	**4403.12**	**7079.90**

a—ECB/Supplier s Credit.
b—Bonds.
c—Oils Coordination Committee.
d—Public Deposits.
e—Steel Development Fund.
f—Institutional Loans.
g—Inter-Corporate Transfers.
i—Others.
h—Oil Industries Development Board.

Contribution of State Electricity Boards in 1988-89 at 1987-88 rates of tariffs

(A) State Electricity Boards making positive contribution		(B) State Electricity Boards making negative contribution	
States	(Rs. crores)	States	(Rs. crores)
(1)	(2)	(1)	(2)
1. Andhra Pradesh	81.69	1. Assam	(-)39.42
2. Gujarat	48.07	2. Bihar	(-)97.21
3. Madhya Pradesh	150.35	3. Haryana	(-)133.94
4. Maharashtra	90.53	4. Himachal Pradesh	(-) 8.56
5. Orissa	53.59	5. Jammu & Kashmir	(-)58.16
6. Rajasthan	29.25	6. Karnataka	(-)96.29[2]
7. Uttar Pradesh	248.92[1]	7. Kerala	(-) 0.83
8. West Bengal	20.82	8. Meghalaya	(-)12.12
		9. Punjab	(-)158.91
		10. Tamil Nadu	(-)103.05
Total :	723.22	Total	(-)708.49

[1] Includes contribution of U.P. Rajya Vidyut Utpadan Nigam.

[2] Includes contribution of the Karnataka Power Corporation.

Contribution of State Road Transport Corporations in 1988-89 at 1987-88 Bus Fares

(A) State Road Transport Corporations making positive contribution

States (1)	(Rs. crores) (2)
1. Andhra Pradesh	67.20
2. Goa	0.15
3. Maharashtra	40.10
4. Rajasthan	8.34
5. Tamil Nadu	73.34
Total	189.13

(B) State Road Transport Corporations making negative contribution

States (1)	(Rs. crores) (2)
1. Assam	(-) 8.45
2. Bihar	(-)11.63
3. Gujarat	(-)18.41
4. Himachal Pradesh	(-) 8.55
5. Jammu & Kashmir	(-) 3.63
6. Karnataka	(-)19.02
7. Kerala	(-)15.33
8. Madhya Pradesh	(-) 4.75
9. Manipur	(-) 1.12
10. Meghalaya	(-) 1.65
11. Orissa	(-) 3.46
12. Punjab	(-)13.83
13. Tripura	(-) 2.69
14. Uttar Pradesh	(-)13.56
15. West Bengal	(-)48.11
Total	(-)174.19

Annexure 3.6

Target of additional resource mobilisation in 1988-89 inclusive of buoyancy in receipts and economy in expenditure etc.

(Rs. crores)

States	
1. Andhra Pradesh	152.20
2. Arunachal Pradesh	5.00
3. Assam	108.00
4. Bihar	281.03
5. Goa	5.00
6. Gujarat	233.28
7. Haryana	127.48
8. Himachal Pradesh	28.50
9. Jammu & Kashmir	20.00
10. Karnataka	152.34
11. Kerala	135.70
12. Madhya Pradesh	75.80
13. Maharashtra	526.08
14. Manipur	4.00
15. Meghalaya	5.00
16. Mizoram	4.00
17. Nagaland	4.00
18. Orissa	109.12
19. Punjab	50.00
20. Rajasthan	125.57
21. Sikkim	3.41
22. Tamil Nadu	49.52
23. Tripura	2.25
24. Uttar Pradesh	230.72
25. West Bengal	150.00
Total—States	2588.00

CHAPTER 4

AGRICULTURE AND ALLIED SECTOR

The main objectives of the agricultural development plan as spelt out in the Seventh Five Year plan document are maintenance of self-sufficiency in food in regional balance in agricultural development and production, enhancing the productvity and income of small and marginal farmers, generation of productive employment and extension of "Green Revolution" to new areas. The Seventh Plan emphasises that the growth of agricultural production, if targeted properly· can enforce the attack on poverty and unemployment. In order to achieve these objectives, the agriculture sector is expected to register an annual growth of 4.0% in agricultural production as a whole during the Plan period and 3.7% in respect of foodgrains production which would be supported by the implementation of thrust programmes like Special Rice Production Programme (SRPP), National Pulses Development Programme (NPDP), National Oilseeds Development Project (NODP), Oilseeds Production Thrust Programme (OPTP), National Watershed Development Programme (NWDP), Scheme for Assistance to Small & Marginal Farmers (S&MF), Intensive Cotton Development Programme (ICDP) and Intensive Jute Development Programme (IJDP). After the mid-term review, the foodgrains target of 178-183 million tonnes set for the Seventh Plan has been revised to 173-175 million tonnes keeping in view the performance during the first three years of the Plan.

Weather Conditions during 1987-88

4.2 The first three years of the Seventh Plan were drought years; particularly the third year i.e. 1987-88 witnessed a very severe and widespread drought in most parts of the country due to acute failure of monsoon. About 267 districts in 15 States and 6 UTs were severely affeced by drought. Out of 35 meteorological sub-divisions, 21 received deficient|scanty rains. The worst affected States were Gujarat (Saurashtra) and Rajasthan (West Region). Besides, parts of Tamil Nadu, Uttar Pradesh, Orissa, Karnataka and Andhra Pradesh were also affected due to moisture stress.

4.3 As a consequence of acute failure of monsoon, crop production especially, groundnut, rice, pearl-millet and maize was adversely affected. During the year, there was a shrinkage in area under rice due to drought in the States of Uttar Pradesh, Madhya Predesh and Orissa, and due to prolonged floods in Assam, Bihar and West Bengal. Shrinkage of area under rice was reported in the Southern Region also.

4.4 The overall rainfall pattern was also unfavourable for coarse grains. The consequent late sowing caused shrinkage of area under these crops. The weather conditions were not favourable in important bajra growing States of Rajasthan and Haryana. The bajra crop was affected due to acute water shortage as a result of unfavourable weather conditions in important bajra growing States of Rajasthan and Haryana. The delay in monsoon affected the maize production in the States of Utter Pradesh, Rajasthan, Madhya Pradesh and Bihar. The floods in Bihar damaged the standing maize crop.

4.5 Kharif pulses crop had an initial set back due to drought conditions in Rajasthan, Gujarat, Uttar Pradesh and parts of Orissa. The crop situation in other States was more or less normal. The mortality of crop was very high in the drought affected States.

4.6 The situation of oilseeds production during Kharif 1987-88 was unsatisfactory because almost all the major kharif oilseeds growing States received a severe set-back due to widespread drought conditions. Major shortfalls are anticipated in the production of groundnut, castor and sesamum crops in Gujarat Rajasthan, Uttar Pradesh and Tamil Nadu.

4.7 The sugarcane crop was also affeced to some extent in Punjab, Haryana, Western Uttar Pradesh, Rajasthan and some parts of Gujarat, Maharashtra, Madhya Pradesh, Andhra Pradesh and Karnataka. The yield is expected to go down in these States.

4.8 The sowings of cotton particularly in the rainfed tracts of Central States were considerably affected due to drought conditions. The overall crop condition in the Northern States was satisfactory.

4.9 The jute crop in Assam was damaged by floods on a large scale. The crop also suffered in Uttar Pradesh due to drought. Mesta crop was affected in Rajasthan, Punjab, Haryana and Madhya Pradesh due to drought conditions.

Review of Agriculture Performance

4.10 The targets and achievements in respect of foodgrains production during the Seventh Plan are indicated in the table given below :—

TABLE 4.1

Targets and Achievements of Production of Major Crops.

Crop	Unit	Seventh Plan Target (Revised)	1985-86		1986-87		1987-88		1988-89 Target
			Target	Ach.	Target	Ach.	Target	Anti. Ach.	
1	2	3	4	5	6	7	8	9	10
Foodgrains									
1. Rice	Million tonnes	71.7–72 7	63.50	63.83	65.00	60.42	64-65	53.58	67.95
2. Wheat	,,	54.1–55.1	49.20	47.05	49.00	45.57	50 – 51	44.83	5
3. Coarse cereals	,,	32.9–32 8	33.00	26.20	32.00	26.34	32–32.5	23.58	33.00
4. Pulses	,,	14.5–14.6	13.50	13.36	14.00	11.74	14.–14.5	11.82	13.30
Total food grains	,,	173.2–175.2	159.20	150.44	160.00	144.07	160–163	133 81	166.57
Cash Crops	,,								
5. Oilseeds	,,	16.0–18.0	13.60	10.83	14.80	11:45	14-15	9.4-9.6	15.66
6. Sugarcane	,,	206	191.00	170.65	185.00 190.00	182.48	180-185	180	195.00
7. Cotton	(Lint) Million bales of 170 kgs. each	9.50	8.50–8.60	8.73	8.60	7.01	8.8	8.5	9.78
8. Jute & Mesta	Million bales 9.50 of 180 Kgs. each	9.50	8.65	12.65	8.50	8.63	8.6	7.0	9.20

4.11 The performance of foodgrains production was slightly better in the first year of the Seventh Plan which showed about 95% of the achievement of the target as compared to 90% and about 83% of the targets set for 1986-87 and 1987-88. The shortfall in achievement of targets during the second and third year of the Seventh Plan was of the order of 15.92 to 27.69 million tonnes respectively. Crop production was badly affected in almost all the States during these years due to unfavourable weather conditions particularly the drought in 1987-88. The State-wise foodgrains production performance is given in Table 4.2.

TABLE 4.2

Production of Foodgrains—State-wise

(in '000 tonnes)

S.No. State/UTs.	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
1	2	3	4	5	6	7	8
1. Andhra Pradesh	9992	11413	11172	11381	9615	10374	9139
2. Assam	2706	2419	2773	2709	2570	3030	2588
3. Bihar	9911	8239	7316	9375	10328	10350	10865
4. Gujarat	4475	5089	4396	5744	5257	2736	3101
5. Haryana	6045	6040	6650	6886	6838	8141	7635
6. Himachal Pradesh	1183	1054	973	1051	1007	1201	1214
7. Jammu & Kashmir	1307	1272	1251	1113	1245	1404	1431
8. Karnataka	5880	7308	6022	7252	6873	5362	6909
9. Kerala	1298	1364	1330	1232	1280	1203	1162

1	2	3	4	5	6	7	8
10. Madhya Pradesh	12412	12834	12615	15704	13295	15293	13199
11. Maharashtra	9758	10571	9216	10952	9736	8779	7144
12. Manipur	292	264	230	268	345	347	259
13. Meghalaya	155	155	154	161	160	167	167
14. Nagaland	105	113	123	110	124	118	100
15. Orissa	5977	5437	4563	7017	5619	6883	6445
16. Punjab	11903	13326	14146	14781	16099	17189	17985
17. Rajasthan	6496	7163	8323	10076	7915	7933	6723
18. Sikkim	—	64	63	76	91	96	99
19. Tamil Nadu	5487	7400	4833	6184	6895	7173	7291
20. Tripura	403	360	428	387	379	374	390
21. Uttar Pradesh	24945	24289	26483	29182	29889	31424	29988
22. West Bengal	8281	6550	5852	9170	9256	9126	9661
23. Others	577	571	597	563	623	629	574
24. All India	129588	133295	129519	152374	145539	150440	144066

4.12 The total foodgrains production touched new peaks in four States in the second year of the Seventh Plan i.e. 1986-87. These States are Punjab (18 million tonnes), West Bengal (9.7 million tonnes), Jammu & Kashmir (1.4 million tonnes) and Himachal Pradesh (1.2 million tonnes). In the first year of the Seventh Plan, four States, namely Uttar Pradesh, Bihar, Haryana and Assam achieved record production but showed decline in the second and third year of the current Plan. The States which did not show any improvement in the foodgrains production during this period are: Gujarat, Kerala, Madhya Pradesh, Maharashtra, Karnataka, Orissa and Rajasthan. Of these States, Maharashtra and Gujarat showed downward trend since 1983-84, because of the drought|unfavourable weather conditions. On the other hand, Tamil Nadu, Jammu & Kashmir and Himachal Pradesh maintained upward trend during the same period. The States in the Eastern Region like Uttar Pradesh, Bihar, Orissa and West Bengal are on the whole showing rising foodgrains production trends in the recent period, although there is some fluctuation on account of weather aberrations. As regards cropwise production in the States, record rice production was achieved by seven States, namely, Assam Haryana, Uttar Pradesh, Bihar, Madhya Pradesh, Orissa and Arunachal Pradesh in the first year of the Seventh Plan. In the second year, Punjab and West Bengal crossed the earlier peak by achieving production level of 6.02 million tonnes and 8.5 million tonnes of rice, respectively. In the case of wheat, Punjab is the only State which reached a new record peak of 11.15 million tonnes in 1986-87. Record wheat production was achieved by Haryana, Punjab, Himachal Pradesh, Jammu and Kashmir and Uttar Pradesh in the first year of the Plan. The third year of the Seventh Plan i.e. 1987-88 indicates poor performance mainly because of severe drought conditions in almost all the States.

4.13 During the Seventh Plan, the production of oilseeds is targeted to increase from the base of 13 million tonnes in 1984-85 to 18 million tonnes by 1989-90. This implies a growth rate of 6.72% per annum. After the mid-term appraisal, however, the final year target has been indicated as 16-18 million tonnes to be achieved by 1989-90.

4.14 Sugarcane production has moved up significantly from the level of 154.25 million tonnes in 1980-81 to 182.48 million tonnes in 1986-87. The annual growth rate of sugarcane production based on triennium average for this period was 2.20%, while sugarcane productivity recorded a growth rate of 1.38%. The sugarcane production, however, made a quantum jump of 11.83 million tonnes in 1986-87 over the preceding year.

4.15 The long term growth rate for cotton production works out to be 2.43% per annum between the period 1949-50 and 1986-87. In recent years, however, the annual growth rate of cotton production decilined to 1.47% while productivity showed a significant improvement registering a growth rate of 4.48% in the period 1980-81 to 1986-87. The production of cotton maintained a steady growth during 1984-85 and 1985-86 and thereafter it showed a downward trend in 1986-87 and 1987-88 due to bad weather conditions and pest attack|diseases. Further, stagnation in the coverage of area under this crop has been noticed during 1984-85 and 1986-87. Cotton production during 1987-88 is also expected to be very low due to drought.

4.16 Production of Jute & Mesta registered a compound growth rate of 1.63% per annum for the period 1949-50 to 1985-86, while the productivity exhibits a growth rate of 0.7% during this period. In the recent years from 1980-81 to 1986-87, annual growth rates of jute production and productivity were 3.5% and 3.1% per annum, respectively. As regards performance of jute production in the Seventh Plan period, the first year of the Plan i.e. 1985-86 recorded a new peak production of 12.65 million bales of 180 Kgs. each as against the previous peak of 8.37 million bales in 1981-82 indicating a big jump of 4.28 million bales. The production fell to 8.6 million bales in 1986-87 and is expected to further decline to 7.0 million bales in 1987-88.

4.17 The Mid-term Appraisal carried out to study the agriculture performance during the first three years of the Seventh Plan was discussed in the National Development Council meeting held in March 1988. The main findings of the Mid-Term Appraisal are highlighted in Annexure I.

Crop Production Target for 1988-89

The State-wise targets for 1988-89 in respect of foodgrains & commercial crops were worked out on the basis of broad economic parameters and assumptions given below :

(i) The triennium ending 1985-86 is taken as the base year for all food crops in the States.

(ii) Historical Growth Rate (HGR) for the last 10 years, i.e. TE 1975-76 to TE 1985-86.

(iii) Recent Growth Rate during TE 1980-81 to TE 1985-86.

(iv) Peak Production, area coverage and yield status.

(v) Normal weather conditions

(vi) 70% of additional fertiliser nutrients to be used for foodgrain crops.

(vii) 75% of additional GIA (Gross Irrigated Area) and GCA (Gross Cropped Area) for foodgrain production.

(viii) Fertiliser to Foodgrain Output—1 : 7.5.

4.18 The various targets worked out on the lines mentioned above were discussed and finalised with the Department of Agriculture & Cooperation in an Inter-Ministerial Meeting.

4.19 **The State-wise and All India targets for various** crops for 1988-89 are shown in Table 4.3 and Table 4.4.

TABLE 4.3

Physical Target of Foodgrains Production for 1988-89

(Million tonnes)

State	Rice	Wheat	Coarse cereals	Pulses	Total Foodgrains
1	2	3	4	5	6
1. Andhra Pradesh	8.36	0.01	2.50	0.60	11.47
2. Assam	3.00	0.16	0.20	0.07	3.43
3. Bihar	6.16	3.64	1.20	0.90	11.90
4. Gujarat	0.89	1.70	2.50	0.60	5.69
5. Haryana	1.87	5.30	0.75	0.60	8.52
6. Himachal Pradesh	0.13	0.44	0.58	0.02	1.17
7. J&K	0.60	0.25	0.45	0.03	1.33
8. Karnataka	2.30	0.20	4.10	0.60	7.20
9. Kerala	1.10	—	0.03	0.03	1.16
10. M.P.	5.30	5.10	3.49	2.50	16.39
11. Maharashtra	2.55	1.15	6.00	1.10	10.80
12. Manipur	0.36	—	0.01	—	0.37
13. Meghalaya	0.12	—	0.03	—	0.15
14. Nagaland	0.13	—	0.01	—	0.14
15. Orissa	5.53	0.14	0.60	1.00	7.27
16. Punjab	5.61	11.80	0.60	0.20	18.21
17. Rajasthan	0.15	4.00	3.90	1.70	9.75
18. Sikkim	0.02	0.02	0.05	—	0.09
19. Tamil Nadu	5.41	—	1.70	0.30	7.41
20. Tripura	0.40	—	—	—	0.40
21. Uttar Pradesh	8.90	17.50	4.10	2.80	33.30
22. West Bengal	8.70	0.90	0.13	0.25	9.98
23. Arunachal Pradesh	0.13	0.01	0.05	—	0.19
24. Mizoram	0.05	—	0.01	—	0.06
25. Goa	0.18	—	0.01	—	0.19
Total	67.95	52.32	33.00	13.30	166.57

TABLE 4.4

Physical Target for Commercial Crops for 1988-89

Sl. No.	State	Oilseeds (Lakh tonnes)	Sugarcane (Lakh tonnes)	Cotton (Lakh bales of 170 kg. each)	Jute & Mesta (Lakh bales of 180 kg. each)
1.	Andhra Pradesh	19.89	140.00	10.73	8.65
2.	Assam	1.85	—	—	10.35
3.	Bihar	2.17	50.00	—	12.10
4.	Gujarat	23.69	75.00	19.30	—
5.	Haryana	3.78	65.00	9.69	—
6.	Himachal Pradesh	0.06	—	—	—
7.	Jammu & Kashmir	0.71	—	—	—
8.	Kernataka	16.01	153.00	7.12	0.70
9.	Kerala	0.13	—	—	—
10.	Madhya Pradesh	17.22	25.00	2.94	0.20
11.	Maharashtra	15.43	310.00	18.27	1.25
12	Manipur	0.03	—	—	—
13.	Meghalaya	0.06	—	—	0.80
14.	Nagaland	0.06	—	—	—
15.	Orssa	9.20	—	—	7.35
16.	Punjab	2.61	70.00	16.72	—
17.	Rajasthan	12.82	—	7.12	—
18.	Sikkim	0.10	—	—	—
19.	Tamilnadu	14.00	250.00	5.23	—
20.	Tripura	0.04	—	—	1.20
21.	Uttar Pradesh	13.50	800.00	—	1.00
22.	West Bengal	3.00	—	—	48.40
23.	Arunachal Pradesh	0.16	—	—	—
24.	Mizoram	—	—	—	—
25.	Goa	—	—	—	—
26.	Pondicherry	0.05	—	—	—
	Total — All India	**156.57**	**1950.00***	**97.80**	**92.00**

*Includes 12 lakh tonnes for other States.

4.20 In order to achieve the targets set for 1988-89, emphasis is to be laid on the following action points :—

(i) Ground-level preparation and arrangements for establishing 6 lakh shallow tubewells in the stipulated States, improvement of canal system, as suggested in the Framework Action Plan;

(ii) Ground-level arrangements for extension of HYV area and provision of adequate quality seeds as mentioned in the Framework Action Plan;

(iii) Distribution of fertilisers and pesticides to the farmers as per the Framework action Plan;

(iv) Revitalisation of cooperative financing system in the thrust districts;

(v) Tying with NREP and RLEGP for the programme of dugwells.

Review of Critical Input

4.21 The targets and achievements in respect of selected critical inputs for the first three years of the Seventh Plan are shown in Table 4.5.

TABLE 4.5

Progress of Selected Agricultural Inputs during the Seventh Plan and Target for 1988-89

Sl. No. Programmes	Unit	Seventh Plan Target	1985-86		1986-87		1987-88		1988-89 Target
			Target	Ach.	Target	Ach.	Target	Ant. Ach.	
1	2	3	4	5	6	7	8	9	10
HYV Programme									
(i) Paddy	Million Hect.	32.00	26.50	23.37	25.80	23.48	24.62	21.00*	29.00
(ii) Wheat	,,	22.00	19.50	19.18	20.67	19.02	21.08	21.00*	22.00
(iii) Maize	,,	3.00	2.20	1.80	2.35	1.92	2.40	2.0*	2.50
(iv) Bajra	,,	6.50	5.30	4.99	5.94	4.68	5.90	5.00*	5.50
(v) Jowar	,,	6.50	5.30	6.08	5.85	4.94	6.46	6.00*	6.00
Total—HYV	,,	70.00	58.30	55.42	60.61	54.04	62.25*	55.00*	65.00
2. Distribution of Cetified seeds	Million qtls.	11.74	8.00	5.50*	6.57	5.58	7.30	5.63	8.84
3. Consumption of Chemical Fertiliser									
(i) Nitrogenous	Million tonnes	9.10-9.30	6.35	5.82*	6.80	5.77	6.80	5.93	
(ii) Phosphatic	,,	3.00-3.20	2.20	2.07*	2.40	2.11	2.40	2.26	10.20
(ii) Potassic	,,	1.40-1.50	1.00	0.85*	1.10	0.85	1.10	0.92	
(iii) **Total-3**	,,	13.50-14.00	9.55	8.74*	10.30	8.74	10.30	9.11	10.20
4. Plant Protection Material (TGM)	'000 tonnes	75.00	55.70	52.00	70.00	50.00	75.00	75.00	85.00
5. Area covered under Soil Conservation (Cumulative)	Million Hect.	36.30	30.86	30.48	31.22	31.22	32.07	32.07	

*Provisional.

Special Programmes

4.22 At the instance of Prime Minister, a Task Force was set up for preparing Framework Action Plan to meet the foodgrain targets of the Seventh Plan. The main recommendations of the Task Force are highlighted below ·

(i) Achievement of the target of 175 million tonnes of foodgrains production by 1989-90;

(ii) Implementation of the Action Plan in 169 selected districts—of these, 108 for paddy, 68 for wheat, 27 for maize, 20 for arhar and 28 for gram;

(iii) 6 lakh shallow tubewells to be installed annually in the identified districts in the plains and delta regions of Uttar Pradesh, Bihar, Orissa, West Bengal, Assam and Andhra Pradesh;

(iv) Subsidy scheme for pesticide use as a part of agricultural production package—alternatively, the reduction of the cost of pesticides through an appropriate pricing strategy such as selective imports and regulated tariff policies and extensive rural distribution system;

(v) Cost of production of certified seeds of wheat and paddy produced by official seed producing agencies, has to be subsidised either through overt subsidies or through losses of these para-statal agencies being met by the Union or State Governments. These subsidies will go to seed producing agencies and not to the farmers;

(vi) Special emphasis to be given to the production of breeder seeds of different crops and varieties produced by the Agricultural Universities and ICAR Institutes;

(vii) Availability of adequate credit to the farmers in the thrust districts for the purchase of seeds, fertilisers and pesticides|weedicides;

(viii) Monitoring and evaluation of the Action Programme at district level, State level and Central level;

(ix) Technology for maximising rice productivity;

(a) Improved varieties and agronomic practices;

(b) Efficient soil, water and nutrient management;

(c) Optimum cultural management—timely transplanting;

(d) Effective management of insects, pests and diseases.

National Pulses Development Programme (NPDP)

4.23 Pulses are protein rich crops and meet the dietary requirement of protein of the majority of Indian population. Production of pulses has been almost stagnant in the range of 11—13 million tonnes over the years. The actual production of pulses was 13.36 million tonnes in the first year (1985-86) of the Seventh Plan and it declined to 11.74 million tonnes in 1986-87. During the third year of the Seventh Plan i.e. 1987-88, the kharif pulses crop had an initial set-back due to drought conditions in Rajasthan, Gujarat, Uttar Pradesh and parts of Orissa. The mortality of crop ranging from 50 to 100 per cent was reported from the States which were adversely affected by drought. As a consequence of drought, the pulses production is expected to show considerable decline during 1987-88. A target of 13.30 million tonnes of pulses production has been fixed for the year 1988-89.

4.24 A Centrally Sponsored National Pulses Development Project (NPDP) was launched in the year 1986-87 with a view to increasing production of pulses by adopting location-specific technology. In this project, thrust is given to launch crop and area specific programmes for major pulses crops like gram, arhar, peas, lentil, moong and urd. As a matter of fact, the NPDP is a District-Oriented Mission which is intended to achieve the increased level of productivity within a time frame.

4.25 The main components of the NPDP are :

(i) Distribution of seed minikits of latest short duration improved varieties of different pulses;

(ii) Organising block demonstrations to educate the farmers about the production technology;

(iii) Laying out of adaptive trials of promising varieties on farmers' fields;

(iv) Biological control of Pod Borers through release of parasities, etc.

(v) Training of Extension Workers to educate them in organising the development programme of pulses;

(vi) Production of breeder|foundation seed with the help of ICAR, NSC and SFCI;

(vii) Assistance for Plant Protection Chemicals ;

(viii) Organisation of Seed Villages;

(ix) Stocking and pre-positioning of seed;

(x) Staff and contingencies.

4.26 A provision of Rs. 29 crores as a share of the Government of India has been provided in the Seventh Plan for the National Pulses Development Project. The actual expenditure (Central share) incurred under this programme during 1986-87 was Rs. 1.53 crores. Against a revised estimate of Rs. 5.50 crores in 1987-88, a Central share of Rs. 6.00 crores has been provided for this programme for the Annual Plan 1988-89.

Special Rice Production Programme in the Eastern Region (SRPP)

4.27 In the Eastern States of Assam, Bihar, Orissa and West Bengal and Eastern Uttar Pradesh and Eastern Madhya Pradesh, there is a large gap between the potential and actual yields of rice. For exploiting this potential and maximising yields, a Special Rice Production Programme (SRPP) has been launched from the first year of the Seventh Plan in 430 blocks. These selected blocks are : Assam (37) Bihar (118), Madhya Pradesh (40), Orissa (63), Uttar Pradesh (102) and West Bengal (70). There are eight groups of programme being implemented under the scheme viz. (i) Seeds, (ii) Fertilisers, (iii) Plant Protection, (iv) Farm Implements, (v) Field Demonstrations, (vi) Training, (vii) Land Development|Irrigation and Drainage, and (viii) Infrastructural development. Under this SRPP, main emphasis is being laid on spread of improved rice production technology through the training of farmers and farm labourers including women, organisation of field demonstration, etc. Besides, essential inputs like seeds, fertilisers, improved farm implements, pesticides, etc. are providtd to the poor farmers at subsidised rates. As the constraints vary from block to block, there will be flexibility in taking up different programmes of work. Under different blocks the States have chosen relevant programmes based on actual needs.

4.28 In the first year of implementation of SRPP during 1985-86, it is pertinent to mention that the Eastern States contributed a major share to the increase in rice production in the country. In five, out of the six Eastern States, an all-time record production and productivity of rice was achieved. During 1985-86, while production and productivity increased in all the traditionally rice growing States, a special mention must be made of the States of Madhya Pradesh, Orissa and Uttar Pradesh where the productivity reached the levels of 1078 kg., 1189 kg. and 1487 kg. per hectare from the levels of 759 kg., 969 kg., and 1300 kg. per hectare respectively in 1984-85. In other words, Madhya Pradesh has crossed the rice productivity barrier of one tonne per hectare for the first time. Out of the 5.5 million tonnes of additional rice production achieved in the country during 1985-86, 4.8 million tonnes have been contributed by the States covered by the SRPP. The share of the Eastern States in rice production in the country also increased from 53 per cent to 56 per cent, and 88 per cent of the incremental production is in the Eastern region.

4.29 Delayed on-set and erratic behaviour of monsoon in all the Eastern States during kharif 1986, severe drought in Madhya Pradesh, Orissa and Uttar Pradesh and prolonged floods in Assam, Bihar and West Bengal during kharif 1987 have affected the rice production during 1986-87 and 1987-88. However, the programmes to compensate the kharif losses during rabi|summer season were also launched during these years. West Bengal produced a record level of rice during rabi|summer during 1986-87.

4.30 A Central financial outlay of Rs. 105 crores has been provided for the scheme during the Seventh Plan. An equal amount of matching funds would be contributed by these six States concerned with this programme, as the expenditure is shared on 50 : 50 basis between the States and the Central Government. A Central share of Rs. 33.85 crores has been provided for 1988-89 as against the actual expenditure of Rs. 16.77 crores in 1986-87 and revised estimate of Rs. 20.12 crores in 1987-88.

High Yielding Varieties Programme

4.31 Expansion of the area under high yielding varieties of paddy, wheat and other cereals crops continues to be one of the significant ingredients of the strategy for increasing foodgrains production. During Seventh Plan, it has been envisaged to increase the total area under high yielding varieties from 56 million hectares (assumed base level in 1984-85) to 70 million hectares by 1989-90. The achievement in the base year turned out to be only 54.14 million hectares owing to the shortfall in achieving the target of paddy. The achievements during the first three years of the Seventh Plan also fell short of the targets set for these years. The achievements|likely achievements recorded during the years 1985-86, 1986-87 and 1987-88 are 55.42 million hectares, 54.04 million hectares and 51.28 million hectares respectively showing declining trend in each subsequent years. This trend, which is quite pronounced in case of paddy, might be attributed to the continued dry spell over large areas, rendered more acute by the succession of failure of Monsoon since 1984-85. However, assuming that after a successive failure of Monsoon, there would be a normal monsoon in 1988-89, a tentative target of coverage of 65 lakh hectares has been fixed for 1988-89.

4.32 The high yielding varieties programme gets necessary support from the Central sector scheme of Minikit Demonstrations for rice, wheat and coarse grains (millets). This programme envisages distribution of small quantities of seeds varying from 0.5 kg. to 5.0 kgs. depending upon crop and variety to a large number of farmers, at a nominal cost, to enable them to grow the new varieties in small areas and judge the performance themselves. About 10 lakh seed minikits of different crops were distributed during 1987-88 against 19.20 lakhs during 1986-87.

Fertilisers and Manures

4.33 With a view to increasing the fertiliser consumption in the country, the Government of India has taken a number of steps which, inter-alia, include making available adequate supplies of fertilisers at a uniform price throughout the country through a network of retail outlets, intensive fertiliser promotion programme and other special efforts through various extension activities, including the training and visit system are operating in majority of the States. Further, there is a network of soil testing laboratories in the country to advise farmers on the judicious use of fertilisers for achieving maximum economic returns on the basis of the soil tests. From Rabi 1986-87 onwards, a system of identifying lead fertiliser suppliers at the district and the State levels has been introduced. These lead suppliers help he State Governments in realistic assessment of fertiliser requirements, undertake various promotional activities including opening of additional retail outlets in the rainfed areas and strengthen the soil testing facilities. These suppliers prepare detailed action plan and chalk out the strategy for each district for the next five years in collaboration with State Government functionaries. In order to narrow down inter-regional|inter-State|inter-District imbalances in fertiliser consumption an intensive fertiliser consumption campaign is being implemented in 104 selected districts in the country. To regulate the prices, quality and distribution of fertilisers, the Government revised the Fertiliser Control Order and issued updated order in 1985.

4.34 There were about 1.59 lakh fertiliser sale points in the country as on 31st March, 1986. In order to ensure speedy supply to different parts in the country including the remote areas, the States have been assigned targets for opening additional sale points. These sale points are expected to be opened mainly in dry farming, newly irrigated areas and hilly, backward and inaccessible areas.

4.35 The fertiliser consumption in the country has been showing steady increase in recent years. During the years 1978-79 and 1983-84, the fertiliser consumption recorded impressive growth. The consumption in terms of Nutrients (NPK) increased from 8.21 million tonnes in 1984-85 to 8.74 million tonnes in 1985-86 and further to 9 million tonnes in 1986-87. However, the anticipated consumption during 1987-88 (as reported by various State Governments at the time of Annual Plan discussions) works out to 8.98 million tonnes against the target of 10.30 million tonnes. The shortfall in achieving the targets during the years 1985-86 to 1987-88 might be attributed to adverse weather conditions resulting in fall in demand from the farmers. On the basis of achievement during the past years, a tentative target of 10.20 million tonnes has been fixed for 1988-89.

4.36 For supplementing the use of chemical fertilisers with organic manures and bio-fertilisers, a number of efforts have been contemplated including production of rural-urban compost, coverage of area under green manures and promotion of bio-fertilisers. The production of rural and urban compost during 1985-86 was estimated at 235 million tonnes and 6.7 million tonnes respectively. The coverage of area under green manures was around 5 million hectares. Besides, about 36,000 hectares of cultivable land has been put under sewage|sullage irrigation system. The Government has attached considerable importance to promotion of bio-fertilisers. Under the National Project on Bio-Fertiliser Development, 40 Blue-Green

Algae sub-Centres have been established for production of algae cultures through field multiplication programmes. To strengthen the activities of the National Bio-Fertiliser Centre under National Project, the UNDP is expected to render assistance in the shape of providing equipment not-produced indigenously, making available consultancy in the field of bio-fertiliser technology, training and arranging study tours and fellowship programmes abroad.

Seeds

4.37 Seed being the basic agricultural input, production and distribution of quality seeds vital for increasing agricultural production, especially in the context of Special Foodgrains Production Programme which has been formulated at the instance of the Hon'ble Prime Minister of India for the year 1988-89 and 1989-90.

4.38 During the various Five Year Plans, the importance of quality seed was recognised which resulted in paying considerable attention in ensuring production of certified|quality seeds in the organised sector. The distribution of quality seeds increased from 14 lakh quintals in 1979-80 to 55.83 lakh quintals in 1986-87 and is expected to reach a level of 73 lakh quintal during 1987-88. This includes 36.54 lakh quintals for cereals, 6.98 lakh quintals for pulses 10.61 lakh quintals for oilseeds, 1,28 lakh quintals for cotton, 0.18 lakh quintals for Jute and 17.41 lakh quintals for Potato. A tentative target of 88.35 lakh quintals has been fixed for 1988-89. The Government of India has set up an Expert Group on Seeds under the Chairmanship of Shri K. Ramamurthy, Ex-Vice-Chancellor, Orissa University of Agriculture and Technology. The said Group will go into the whole gamut of adequacy and thrust of the seed research and distribution strategies and the mechanism for inter-linkages of nucleus, breeder, foundation and certified seed programmes along with the delivery systems of seed to the farmers and other related matters. It is expected that the Report of the Group could be finalised during the year 1988-89 itself and the recommendations of the Group would be implemented in streamlining the whole system of production, distribution, processing and pricing of seeds, which would go a long way in solving the problems of the farmers in regard to the supply of quality|certified seeds.

4.39 The Government of India had launched a scheme of buffer stocking of seeds in 1978 to take care of sudden requirements of seeds in the wake of natural calamities like floods, diseases and drought. The scheme was, hitherto, being implemented by the National Seeds Corporation on the behalf of the Government of India. This scheme has since been revised now; and now the State Seeds Corporation will participate in the scheme with a view to meeting the local needs of the State. The State Governments are supposed to participate in it on a 50:50 basis through their State Seeds Corporations. As per the revised scheme, the National Seeds Corporation will be the sole implementing agency in respect of North-Eastern region for which the cost of maintenance of the buffer stock will be fully re-imbursed to the National Seeds Corporation.

4.40 With a view to achieving the seed distribution target of 11.74 million quintals by the end of the Seventh Plan, it has been decided to expand the infrastructural facilities for seed production, processing, certification, quality control and distribution, not only in the existing National Seeds Project States, but also in other States like Assam, West Bengal, Gujarat and Madhya Pradesh and in the North-Eastern region. This will be achieved through the scheme of National Seeds Project Phase-III. This Project is under the advance stage of examination and is expected to be assisted by the World Bank. Some of the important States have already prepared perspective seed plan for their State in consultation with State Agricultural Universities and have decided to proceed in accordance with the plan which would help the farmers in getting the required type of seeds depending on the agro-climatic conditions of the area.

Plant Protection

4.41. Plant protection continues to play a vital role in sustaining the production potential of crops. Under plant protection, greater reliance is placed on prophylactic measures like surveillance, fore-warning and protective treatment, etc. Integrated pest management is the cardinal principle and main plank of the Government policy on plant protection and the same is beig implemented|popularised in the States|Union Territories through eight Central and Centrally Sponsored Schemes. Surveillance over pest situation is normally undertaken so as to restrict the use of plant protection chemicals as a part of the Central Sector scheme only to contingencies when the pests build-up crosses the threshold levels. Concerted efforts are also being made to increase the safety awareness among farmers, dealers and other concerned. Nineteen Central Surveillance Stations and 13 Central Plant Protection Stations located in different parts of the country conducted surveys for monitoring pests and diseases of economically important crops like Paddy, Oilseeds, Pulses, Sugarcane, Cotton, etc. A sample area of 3 lakh hectares was scanned through these surveys during Kharif season and an area of 3.5 lakh hectares has been targetted for coverage during 1987-88 Rabi season. These surveys helped to detect the build-up of pests and diseases in the early stages of their development and facilitated adoption of timely plant protection measures against pests and diseases like Rice-hispa in Assam, Brown Plant-hopper in coastal districts of Andhra Pradesh, Rice blast disease in Andhra Pradesh and Tamilnadu, Tikka disease and Red hairy Caterpillar on groundnut in Andhra Pradesh, Tamilnadu and Karnataka, Pyrilla on Sugarcane in Uttar Pradesh, Rajasthan and White-fly on sugarcane in Gujarat.

4.42 Major emphasis has been laid on the use of biological improvements for effective management crop pests|weeds to minimise the dependence on the use of chemical methods of plant protection. During the year 1987-88, 20 species of exotic|indigenous natural enemies of insects-pests and weeds were mass-reared|multipied at 11 biological control stations and one Parasite Multiplication Unit for large scale field release. By mass release of about 315 million predators|parasites, the population of important crop pests was effectively suppressed.

4.43 In the scheduled desert area of Rajasthan, Gujarat and Haryana, where the locust is an endemic pest, constant vigil was kept through intensive surveys by 34 locust out-posts. These surveys were also supplemented by special border surveys and random surveys.

4.44 During 1987-88, under the Destructive Insects and pests Act, 1914 and International Convention on Plant protection, screening of about 3,80,132 tonnes and 42,308 numbers of plants and plant materials imported from various countries was done by the existing 26 Plant Quarantine and Fumigation stations located at major international airports, sea-ports and land frontiers to check the presence or otherwise of exotic pests and diseases.

4.45 The Central Plant Protection Training Institute, Hyderabad organised 22 courses on various aspects of plant protection technology till January, 1988 and four more training courses might have been conducted by the end of March, 1988.

4.46 The consumption of plant protection chemicals (technical grade-materials) increased from 52,000 tonnes in 1985-86 to 72,000 tonnes in 1986-87 and is estimated to reach the level of 1.27 lakh tonnes during 1987-88. (this is based on the information furnished by State Government to the Working Group on Agriculture while discussing their Annual Plans for 1988-89). A target of consumption of 75,000 tonnes of technical grade material has been tentatively fixed for 1988-89. This is at par with the target set for 1987-88.

4.47 During 1988-89, it is proposed to undertake sample survey of 3 lakh hectares for pest monitoring of Kharif crops with special reference to rice and 3.5 lakh hectares on Rabi oilseeds and pulses. Besides, it is also envisaged to have a locust survey and their control in the scheduled Desert Areas of Rajasthan, Gujarat and Haryana. Mass multiplication and field release of about 300 million parasites and predators for the bio-control of major crop pests|weeds would also be undertaken Plant quarantine regulations for precluding the introduction of exotic pests and diseases would be strictly implemented. Training courses for State functionaries on various aspects of plant protection technology at the Central Plant Protection Training Institute, Hyderabad will also be organised.

The Pesticide Policy under the Framework Action Plan

4.48 Pesticides and weedicides are considered necessary for improving yield for paddy, wheat and pulses. The Task Force has considered a proposal of operating subsidy scheme for pesticide use as a part of the agricultural production package. An alternative to the subsidy, more convenient to the farmer, would be to reduce the cost of pesticide through pricing strategy. The farmer would then not have to undergo the formalities of subsidies. Subsequently, as recommended by the Task Force, the prices of many pesticides have been reduced by reducing the excise duties levied on them. Besides, import of some fungicides, weedicides and insecticides has been permitted under OGL as recommended by the Task Force.

Agriculture Extension and Training

4.49 In the post-Green Revolution period, the importance of strengthening the extension machinery to carry out the programmes of transfer of technology and training the farmers to improve their skills was immensely realised. Consequent upon the reorganisation of the Agricultural Extension Services, the Training and Visit system (T&V) was taken up in 13 States during the Sixth Plan. Now this system is in operation in 17 major states viz. Assam, Andhra Pradesh, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Orissa, West Bengal, Uttar Pradesh and Punjab and 10 States have completed their project period of 5 years. This system, despite several difficulties associated with innovative measures, played a significant role and made perceptible contribution in the form of introducing new crops in non-traditional areas, new crop rotations, increasing the intensity of cropping etc. Adequate attention was also given to improve the educational and technical competence of the extension functionaries and attempt was also made to bring about close linkages between Agricultural Universities, agricultural wings of the State Agricultural Departments and the farming community. A new project, entitled National Agricultural Extension Project (NAEP-I) was taken up initially in 3 States of Orissa, Madhya Pradesh and Rajasthan with World Bank Assistance, for further improvement of the reorganised system. Under this, Directorates of Extension had been strengthened for the effective management and supervision of extension net-work in all the States. This Project also provided for Centrally sponsored component consisting of special sub-projects to bridge the perceived gaps and rectifying weaknesses in the on-going system. The States were encouraged to float special sub-projects and 13 projects (SSPs) were in operation during 1987-88. The areas strengthened through SSPs in the States included training support, research extension linkage and information support. The implementation of NAEP-II which is entirely in the State sector, covers the States of Gujarat, Haryana, Karnataka and Jammu and Kashmir: the first three States have taken up the second phase. Some of the aspects which, under this system, receive attention are :—

(i) Coordination between T&V system and supply of inputs and related services;

(ii) Linkages between the research institutions, Agricultural Universities and Extension set-up in different States;

(iii) Orientation of extension programmes to specifical conditions; and

(iv) Building up of internal strength of operational functionaries by sharing experience through actual field visits, motivating them through incentives and recognition and equipping them with adequate professional skills.

4.50 The National Agricultural Extension Project-III which has been negotiated with the World Bank, besides covering Central as well as Centrally sponsored components, also covers extension projects in the states of Assam, Bihar, Uttar Pradesh, Himachal Pradesh and Punjab—the first two states taking to the second phase. A sum of Rs. 50 lakhs was provided for special sub-projects under NAEP-III during 1987-88 for releasing to the States on the receipt of project proposals and their approval by Project Funding Committee. In Maharashtra, Tamil Nadu and Andhra Pradesh, the extension projects are operating in their first phase while West Bengal and Kerala, after completion of the first phase, have been following reformed extension system on the T & V pattern.

4.51 During the year 1987-88, the Central Sector and Centrally sponsored schemes of the Field Extension Unit gained momentum. Consultants (40) appointed under the central sector sub-project are likely to complete their programme. 20 inter-disciplinary teams, which were supposed to review the state extension projects, comprising members from the Crops Division, ICAR, SAUs and State Agriculture Departments, completed their programmes targetted for the year. The component of consultancy for identification and preparation of projects also progressed satisfactorily. Special studies on the relevant topics like extension cadre management, information support, research extension linkage, etc. were undertaken. During the year nine national regional level seminars workshops were organised on extension, monitoring and information support to agriculture. A national level meeting was organised at New Delhi in which the training plan for 1988-89 was drawn up. A mid-term review workshop was also organised to review the progress made during 1987-88 and to make mid-term corrections.

4.52 For upgrading the professional competence of field-level extension functionaries, particularly the Subject-Matter Specialists, intensive refresher special training programmes were organised during 1987-88. Till January, 1988, 81 courses in the various subject matter areas were organised in which 1231 SMSs were trained. By the end of March, 1988, 4 more training courses might have been organised involving 100 officers. Further, the existing Extension Education Institutes at Rajendra Nagar (AP), Anand (Gujarat) and Nilokheri (Haryana) provided training support in areas like supervision and extension management, monitoring and evaluation, forestry extension etc. Forty-four courses were organised for training 785 officers till January, 1988 and 10 courses more have been arranged by the end of March. Besides, a net-work of Gramsewak Training Centres|Extension Training Centres and Farmers' Training Centres continued to impart pre-service|in-service tratining to grass-root level extension functionaries and farmers respectively. Ten training camps were also organised by national level voluntary organisations like Bharat Krishak Samaj and Rashtriya Kisan Sangathan for supplementing agricultural extension and training programmes. A training course was also organised especially for women field extension functionaries and 24 officers were trained. Eighty VLWs completed their studies leading to B.Sc. (Agriculture) degree during 1987-88. A National Centre for Management of Agriculture Extension (MANAGE) which was set up as an Apex Institute at the national level for providing training in extension management, might have organised 9 training courses|workshops (including 7 organised up to January, 1988) for senior and mid-level officers of the State Departments of Agriculture|Horticulture and training Institutes.

4.53 The Directorate of Extension participated in seven regional, national and inter-national fair and exhibitions. Further, collaboration with he Ministry of Information and Broadcasting the Directorate of Extension produced short agricultural instructional and research films and distributed to all the concerned State Departments of Agriculture. During 1987-88, 15 such films were expected to have been produced. The National Productivity Council gave away eleven productivity awards during this year in the core sectors of agriculture namely, dairy, seeds, fishery, horticulture, oilseeds, bio-fertilisers, marketing, agro-industries, dryland farming and poultry which is expected to provide the necessary motivation and healthy competition among the producers.

4.54 During 1988-89, the on-going central and centrally sponsored schemes would be continued. As a part of central sector scheme (NAEP-I), it is proposed to arrange 41 visits by the staff (including inter-disciplinary teams and consultants) of the Directorate of Extension to States, construction of office building for the Directorate to house all the four wings, constitute 20 inter-disciplinary teams; organise 8 seminars|workshops, 57 training courses to impart training to 1140 functionaries; strengthen the existing Extension Institutes for organising 25 courses, depute 12 central and State level officers for training abroad, impart training to 184 VLWs (including AEOs and SMSs). Under NAEP-III, an Extension Training Institute is proposed to be set up in North East Region. Besides, 6 Advance Training Centres would be established in the States. Under centrally sponsored scheme, as a part of NAEP-I and NAEP-III, number of special sub-projects would be taken up in the States depending on the formulation of these sub-projects by the participating States.

4.55 Three National and International Fairs|Exhibitions (1 National and 2 International) would be organised as a part of the scheme, 'Participation in National|International Fairs|Exhibitions'. 35 reels of agricultural films would be produced and distributed to various States. As a part of the National Productivity Awards in Agriculture, 12 awards would be given in various fields of agriculture.

4.56 Against the Seventh Plan allocation of Rs. 25 crores (in the central and centrally sponsored sector), the likely expenditure for the first three years of the Plan works out to Rs. 8.79 crores representing 35.48 per cent of the plan allocation. A sum of Rs. 7.22 crores (Rs. 5.57 crores for central sector and Rs. 1.65 crores for centrally sponsored sector) has been provided for this programme during 1988-89.

National Oilseeds Development Project (NODP)

4.57 With a view to providing required fillip in production of oilseeds during the Seventh Plan it was felt necessary to integrate various on-going centrally sponsored schemes for oilseeds development which were in operation during the Sixth Plan so as to have a compact National Oilseeds Development Project (NODP). This project was implemented during 1984-85 and 1985-86 on 100 per cent central assistance basis. Later on, keeping in view the constraints experienced during the Sixth Plan it was felt necessary to revise the project and build up long-term capabilities. Accordingly, the NODP was reoriented in 1986-87 giving main thrust on intensifying efforts at district level by strengthening the key institutions responsible for providing to the farmers various services such as inputs, extension, credit etc., so as to assist them in increasing the production of oilseeds. The important components of the project include production, distribution, buffer stocking of seeds, distribution of minikits, strengthening of fertiliser distribution channels, more effective farm mechanisation as well as marketing and price support. In order to implement the scheme, 180 districts which have adequate potential for the cultivation of oilseeds, were selected, comprising crop sub-project to cover an area of 146 lakh ha. in these districts. Under the project, the States are undertaking diagnostic analysis of the constraints inhibiting production and have been identifying managerial and other remedies required for overcoming these constraints. They have been allowed some flexibility in the matter of availing of assistance under those components which are of particular relevance in the context of specific constraints prevalent in the districts covered. The revised project is being implemented as a centrally sponsored scheme on 50 : 50 basis. During the year 1987-88, a sum of Rs. 17.50 crores was released by way of central share. Similarly, an amount of Rs. 17.50 crores has been provided in the central budget with the stipulation that equal amount would be spent by the concerned States during 1988-89.

Technology Mission on Oilseeds

4.58 In order to provide adequate research and technology support to the National Oilseeds Development Project, a Technology Mission on Oilseeds was setup in May, 1986. The main objective of the Mission is to make the country self-reliant as early as possible in edible and non-edible oils and to reduce imports. The Mission would concentrate its activities on the major crops which contribute substantially to the edible oil economy of India to achieve this end. The crops which would receive priority are : groundnut, rapeseed-mustard, soyabean, sunflower, safflower, linseed, sesamum and niger. The Mission has divided the operational responsibilities among four sub-mission dealing with technology, production, inputs and marketing-cum-processing support. Each of the the common objectives and contributes to the further development of programme through monthly reviews. At the national level, a Standing Committee has been set up to provide guidance for the proper functioning of the Mission.

Oilseeds Production Thrust Project (OPTP)

4.59 With a view to supplementing the efforts being made through NODP for achieving the target of oilseeds production set for the Seventh Plan, an Oilseeds Production Thrust Project was launched in 14 States during kharif 1987. This programme is based on an analysis of areas, productivity and stability of the more important oilseeds—viz. groundnut, rapeseed/mustard, soyabean and sunflower in the country. Under this project 100 per cent central assistance is given for the production and procurement of seed, plant protection umbrella, demonstrations, minikits distribution, application of sulphur and farmers' training and crops like groundnut, rapeseed-mustard, soyabean and sunflower have been covered. A sum of Rs. 125.16 crores has been earmarked for this project for the three years (i.e. 1987-88 to 1989-90) of the Plan. During 1987-88, a sum of Rs. 18.9 crores (i.e. 6.9 crores for kharif and Rs. 12.0 crores for rabi) was allocated. An amount of Rs. 35 crores has been earmarked for the project in 1988-89.

4.60 Despite the implementation of NODP and OPTP, the target of 14-15 million tonnes of oilseeds set for 1987-88 is not likely to be achieved in as much as the likely production would be in the range of 9.4 million tonnes to 9.6 million tonnes. This is even less than the previous year's (1986-87) production of 11.45 million tonnes. This shortfall might be attributed to the fact that almost all the major kharif oilseeds growing states received severe set back due to widespread drought resulting in significant shortfalls in the production of groundnut, castor and sesamum crops. States like Gujarat, Rajasthan and U.P. were worst affected.

4.61 The NODP alongwith OPTP is proposed to be continued during 1988-89 in 180 districts of 17 States and the strategy of increase in area and productivity would be followed to increase production of oilseeds. Farmers will be induced to grow rapeseed/mustard in wheat area where irrigation facilities are limited and the area under sunflower would be extended in potential area using imported Russian sunflower variety seed. Production of oilseeds will be increased through adoption of improved package of practices, introduction of short duration varieties, use of quality seeds, application of fertilisers and sulphur in recommended doses, need based timely plant protection measures against pests and diseases etc. Based on the strategy indicated above, a target of production of 15.66 million tonnes of oilseeds has been set for 1988-89.

National Watershed Development Programme for Rainfed Agriculture

4.62 Rainfed agriculture is subject to the disadvantages of risk and uncertainty which inhibit farmers from investing in and taking advantage of modern agricultural technology. As a result, agricultural production in these areas is both low and subject to wide fluctuations, depending on the behaviour of the monsoon. At the same time, rainfed agriculture accounts for more than 70 per cent of the country's net sown area and a large proportion of the production of a number of important crops like coarse cereals, pulses, oilseeds and cotton. Considerable importance is therefore being given to stabilising and raising agricultural production and productivity in such areas.

4.63 To augment the efforts of the States in this direction, a National Watershed Development Programme for Rainfed Agriculture was launched as a Centrally sponsored scheme in 1986-87 with a total approved outlay, for a four year period, of Rs 239 crore, of which Rs. 120 crore is the Centre's share. The Programme is in operation in 16 States. The main components of the programme, designed to increase and stabilise crop yields by disseminating technologies for scientific dryland farming, are land and moisture management works for introduction of improved cropping systems, dryland horticulture, fodder production and farm forestry; contingency seed stocking and supply of seedlings and grass seeds|slips; adaptive trials; supply of improved tools and equipment; and training and extension.

4.64 Against the annual target of covering 2.32 lakh ha. during 1986-87 a sum of Rs. 13.25 crores was released for covering 0.96 lakh ha. under works programmes. In the following year a coverage of 2.12 lakh ha. is anticipated, with the centre's share of outlay at Rs. 28 crores. During 1988-89, a provision of Rs. 30 crores has been made for the Centre's share of the outlay to achieve the targetted coverage of 6.41 lakh ha.

Assistance to Small & Marginal Farmers for increasing Agricultural Production (SMFP)

4.65 In order to help the small and marginal farmers in increasing their agricultural production and thereby improving their economic conditions, this centrally sponsored programme was taken up in the year 1983-84 and is in operation in the Seventh Plan. The scheme envisages coverage of all the 5047 IRD blocks in the country and has components like subsidy on minor irrigation works, distribution of minikits of oilseeds, pulses and coarse grains and land development including cost of staff restricted to only Rs. 4,000 per block. For this programme, an annual outlay of Rs. 5 lakhs per block has been provided which is equally shared by the Central and the State Governments. The component-wise allocation of the annual plan is in the ratio of 7 : 1 : 2 between minor irrigation, seed minikits of oilseeds, pulses and coarse grains and land development. A sum of Rs. 500 crores has been earmarked as outlay under central sector for the Seventh Plan. Matching contribution on 50 : 50 basis is being provided by the State Governments and in case of UTs the entire expenditure is being met by the Government of India. Grant-in-aid amounting to Rs. 306.27 crores were released by the Government of India as central share to all the States and UTs during the period 1983-84 to 1986-87. The matching contribution on 50 : 50 basis was also provided by the State Governments. As per the report of the State Governments, about 84 per cent of the funds have been utilised under the scheme upto the end of 1985-86. During the year 1987-88 against a budgetted outlay of Rs. 66.95 crores, grant-in-aid amounting to Rs. 48.42 crores has been released to all the states|UTs till the end of December, 1987. Under minor irrigation component of the scheme, it has been reported that since its inception till Sept. 1987, 5.06 lakh wells|tube-wells have been constructed and 5.25 lakh pump sets|diesel machines|electric motors have been installed by the small and marginal farmers. With these efforts, it is estimated that an additional irrigation potential of about 10 lakh ha. has been created.

4.66 In respect of distribution of minikits of seeds of oilseeds, pulses and coarse grains a massive programme was organised and against the target of distributing 20.18 lakhs of minikits duirng 1987-88 the likely achievement works out to 17.24 lakhs which is significantly less as compared to the achievement of 45.10 lakh in 1986-87. Similarly, under the land develoment component of the scheme, an area of about 1.82 lakh ha. has been covered since its inception (till September, 1987).

4.67 This programme is proposed to be continued during the year 1988-89. Under the component minor irrigation, works relating to dug-wells|shallow tube-wells|filter points, boring and deepening of wells, rennovation of old wells, installation of pumpsets|electric motors|diesel engines and Rahats with appropriate water conveyance and distribution system, gully plugging, nullah bunding, construction of water storage structure including ponds, percolation tanks, deepening of existing village ponds, etc. would be taken up. Under minikit programme, minikits of seeds of oilseeds, pulses and coarse grains will be distributed to the target group against a nominal charge. It is proposed to distribute over 20 lakh minikits during 1988-89 at the rate of 400 minikits in each block. Under the land development programme, the works proposed to be undertaken at small and marginal farmers' fields would include : land smoothening to improve insitu moisture conservation, contour key line interception bunds constructions and dead furrow formation across the slope, putting up small check dams or plugs or land erosion control structures to hold rainwater temporarily and help in recharging soil profile.

4.68 With a view to providing required support to the accelerated programme of foodgrains production during the last two years of the Seventh Plan, it is envisaged to relax the norm of this scheme so as to include Semi-medium farmers (holding 2-4 hectares of land) for getting help in the form of 20% subsidy for installing one lakh additional shallow tube-wells in 14 States.

4.69 A sum of Rs. 128 crores (including Rs. 90 crores for shallow tubewells) has been provided in the budget for 1988-89 for implementing this scheme.

Horticulture

4.70 Development of horticulture is seen to bestow multiple benefits. Apart from raising the economic status of the grower through an increase in his returns per unit area under cultivation, it contributes to improvement in nutritional standards, employment generation, export earning and a better environment. Horticultural crops are also particularly suitable for diversifying agriculture in some of the problem locations like hill aeras, dryland tracts and coastal saline belts. Given the wide range of agro-climatic conditions prevailing in the country, a vast potential exists for growing a variety of horticultural crops.

4.71 During 1988-89, efforts will continue to improve the production of various horticultural crops, such as fruits, vegetables, coconut, cashewnut and spices, through area expansion, quality improvement, adoption of better technology and introduction of new crops. Attention will also be given to post-harvest technology and marketing of horticultural produce, Towards this end diverse schemes in the Central and State sectors, including foreign-aided projects, will continue to be implemented. For this purpose, apart from the allocations in the State Plans, a provision of Rs. 8.44 crores has been made in the Central Plan for Horticulture.

Plantation Crops

4.72 Production targets and achievements in respect of tea, coffice, rubber and cardamom during the Seventh Plan period are given in table 4.6.

TABLE 4.6

Targets and Achievements in respect of Plantation Crops

Crops	Unit	1985-86		1986-87		1987-88		1988-89
		Target	Ach.	Target	Ach.	Target	Ach.@	Target
1	2	3	4	5	6	7	8	9
Tea	Million Kg.	651	649	677	621	702	675	700
Coffee	'000 tonnes	146	122	154	185	162	125	171
Rubber	"	196	200	217	220	240	235	255
Cardamom . . .	Tonnes	3450	4700	4000	3800	4650	2900	4650

@estimated/provisional

*As suggested by the Working Group.

4.73 After achieving the record production level of 649 million kgs. in 1985-86, the tea production declined to 621 million kgs. in 1986-87 due to adverse agro-climatic conditions. Tea production is again expected to reach all time record of 675 million kgs. in 1987-88. Various development schemes are in operation for increasing tea production of which the important are · Tea Plantation Finance Scheme, Tea Machinery & Irrigation requirement, Miscellaneous Purchase scheme. Tea replantation Subsidy for Replanting old Bushes, Tea Area Rejuvenation and consolidation Subsidy scheme, Special Loan and Subsidy for extending for cultivation in non-traditional areas, and Interest Subsidy on Bank Loan for irrigation and Drainage and Extension Planting. India continues to be the largest exporter of tea in the world. During 1986-87, export earning from tea were Rs. 615 crores and quantity exported was 200 million kgs. The Tea Board undertakes various promotional programmes to promote export of Indian Tea. The outlay for tea in the Annual Plan 1988-89 is Rs. 652 lakhs (B.E.) as against Rs. 740.4 lakhs for 1987-88.

4.74 Coffee is mainly cultivated in the three Southern States of Karnataka, Kerala and Tamilnadu. About 98 per cent of the coffee holdings in the country are small holdings of less than 10 hectares. The average productivity of coffee has significantly gone up from 485 kg|ha in 1978-79 to 935 kg|ha in 1984-85. Due to deficient rainfall in the traditional coffee growing area of Karnataka, Kerala, and Tamilnadu during 1987-88, coffee production is expected to be around 120 thousand tonnes against 185 thousand tonnes achieved in preceding year. To increase production and productivity the Coffee Board is implementing various schemes which include (I) Mobile soil testing|pest surveillance (II) High yielding seed multiplication, collection and distribution (III) Survey of area for coffee expansion in non-traditional areas (IV) Development loan and Subsidy Schemes for Intensive|Extensive cultivation, Replanting and Hire Purchase of Machinery and equipment etc. Export of coffee during 1986-87 was 86.2 thousand tonnes valued at Rs. 362.92 crores. To boost up coffee export the Government of India offer cash compensatory support and import replenishment on export of instant coffee. The outlay provided in the Annual Plan 1988-89 for coffee is Rs. 727 lakhs as against Rs. 494 lakhs for 1987-88.

4.75 Rubber is mainly grown in Kerala, Tamil Nadu and Karnataka. Total area covered under rubber cultivation at the end of 1986-87 was 384 thousand hectares. Rubber plantations are predominated by small holders numbering 337 thousand and accounting for 77 per cent of the total rubber plantations area. Average yield per hectare of rubber plantation is currently around 930 kgs. as against 771 kgs. in 1979-80. Rubber production shows an upward trend during the period 1982-83 to 1987-88. Rubber production is estimated to be 235 thousand tonnes in 1987-88. The Rubber Board is implementing various development schemes to boost up rubber production in the country. These include (i) Capital subsidy to the rubber growers, (ii) Polybag plant subsidy, (iii) Interest subsidy, (iv) Free extension advisory support, and (v) Financial assistance to cooperative societies. During 1986-87, 40228 tonnes of rubber was imported, valued at Rs. 39.63 crores to meet the domestic requirements. An outlay of Rs. 14.12 crores has been provided for 1988-89 as against Rs. 13.83 crores in 1987-88.

4.76 Cardamom is mainly grown in the three states of Kerala, Karnataka and Tamilnadu. An estimated area of 1.05 lakh hectares is covered under cultivation of cardamom. Production during 1986-87 was 3800 tonnes against 4700 tonnes in 1985-86. During 1986-87 export of cardomom was of the order of 1447 tonnes valued at Rs. 18.50 crores. The Spices Board is implementing various schemes for increasing the production of cardamom which included :—

- (i) Replanting subsidy scheme,
- (ii) Development of infrastructure for water resources, development, management and harvesting ;
- (iii) Extension advisory scheme ;
- (iv) Opening of demonstrating plots.

Plasticulture

4.77 Use of Plastics in agriculture and water management is called plasticulture. The plastics use is in the form of film for lining the canals, water courses, pond and reservoirs ; plastic pipes for tubewell boring, suction pipes in pump sets and conveyance of irrigation water, drip irrigation for directly supplying to the root zones of the plants needed quantities of water and fertilisers ; sprinkler irrigation suitable for closed space crops ; nursery bags for afforestation ; green houses|low tunnels for favourable micro climate for better growth and production ; plastic mulch for retaining soil moisture and preventing weed growth ; cap covers for outdoor foodgrains storage ; and plastic crates for vegetable and fruits. These techniques lead to not only water conservation but to increased yields in agriculture and at the same time help in conservation of our forest wealth.

4.78 The Government has set up a National Committee on the Use of Plastics in Agriculture (NCPA) in 1981 which is playing catalytic role in development of plasticulture applications in India.

4.79 About 6500 kms. of canal lining has been completed succesfully mainly in the States of Gujarat, Madhya Pradesh, Rajasthan, Punjab, West Bengal and Bihar. The plastic pipes for water conveyance and pump sets are becoming popular in U.P., Maharashtra and Kerala. Nursery bags are being used extensively for afforestation programmes. Drip irrigation has made a modest and successful beginning covering 14,000 acres mainly in orchards, plantation crops and vegetables. The use of plastic cap covers is now the accepted practice for outdoor storage of foodgrains. As for plastic crates, Mother Dairy, Delhi and HPMC, Simla are using them successfully over the last 3-4 years in closed loop operation of marketing and distribution of fruits in Delhi and bringing apples from orchards to packing houses. The NCPA has already set up 18 Plasticulture Development Centres (PDCs) to carry out development, research and extension activities, at an expenditure of Rs. 72 lakhs so far.

4.80 Plans for 1988-89 are to identify 15 districts by Ministry of Agriculture for intensive demonstration of plasticulture applications namely, drip irrigation, sprinkler irrigation, underground pipe network, plastic mulch, greenhouse|low turnnels and linking of ponds. Ministry of Water Resources will prepare the film lining programme for canals, etc. Incentive schemes for encouraging drip irrigation, sprinkler and plastic pipes are being formulated for making them available to all categories of farmers without restricting it to the small|marginal farmers. Ministry of Agriculture will promote green houses|low tunnels in hilly areas and IPCL will develop quality film for this purpose. 20,000 crates are to be supplied to HPMC, Simla and 2,000 to J&K for trial use of packaging and distribution of apples to the Delhi market. 4 more PDCs are proposed to be set up in 1988-89 to generate improved crop practices in Indian conditions.

AGRICULTURAL RESEARCH & EDUCATION

Review of Progress during 1987-88

Crop Sciences

4.81 Crop improvement work is continued and intensified particularly in relation of breeding of high yielding varieties of varying duration of cereal crops, pulses and oilseeds. Research work also continued on other areas of research on commercial crops like sugarcane fibres—jute, mesta and cotton. The Central and State Variety Release Committees released 20 varieties of rice suitable for cultivation in diverse conditions in 9 States and 49 varieties were identified for minikit testing. In addition, 16 varieties were identified by agricultural universities in Andhra Pradesh, Assam, Karnataka, Maharashtra and Tamil Nadu. The major research efforts in rice were concentrated on releasing varieties for increasing production under rainfed situations, particularly, in Eastern India. In the case of wheat, 2 high yielding varieties were released for cultivation in irrigated areas of North Eastern plains and rainfed areas of peninsular zone. The hull-less varieties of barley, namely, 'Neelam' with yield potential of 5 tonnes for gangetic plains and 'Kadar' tolerant to yellow rust with yield potential of 3 tonnes per ha. were released. Four varieties of maize, two of early and two of medium maturity were recommended for release. An early maturing variety of bajra hybrid—Pusa 23, was released for drought prone areas and 4 varieties of finger millet were recommended for cultivation in different regions.

4.82 In case of pulses, a new variety of pigeonpea with a yield potential of 4 tonnes per ha. was recommended for red soil area of Karnataka and two chickpea varieties with yield potential of about 2.3 tonnes per ha. were identified. Similarly, one mungbean variety, two urdbean varieties and one cowpea variety were released during the year.

4.83 Oilseed research is another important area on which research was concentrated during the year and 9 promising varieties of oilseeds having regional and national importance were identified. Four of these are groundnut varieties, 3 of sesamum and one each of sunflower and linseed. ICAR also concentrated its effort for adequate production of breeder seed of oilseeds. Production of breeder seed of oilseeds was increased by 34 per cent over the production level achieved during the previous year.

4.84 In sugarcane 'CoLk 8001' has been recommended for the uplands of western zone. It is thick, tall fertilisers responsive, drought tolerant variety resistant to red rot wilt and smut. 'LS 6' variety of sugarbeet has been released for commercial cultivation. The variety gives high yields of root and gross sugar of low imparity and is resistant to root rot, leaf spot diseases and high temperatures.

4.85 In cotton, 10 improved varieties and hybrids were recommended for cultivation in view of their superiority in yield ginning outturn, spinning quality and earliness for northern central and southern zones.

Horticulture

4.86 Twenty two new centres of the All India Coordinated Research Projects in different horticultural crops were started in various states of the country. Task Forces set up for establishing new Institutes and National Research Centres have made specific recommendations for their location.

4.87 In fruits, three promising hybrids each in mango and grapes have been developed, while the new hybrid CO-I of bannana and CO-6 of papaya have been recommended for release. In kagzi lime, hybrids showing resistance to canker have been developed, while in ber varieties resistant to powdery mildew have been identified.

4.88 In vegetables. 25 improved varieties in seven vegetables crops have been recommended for release during the year. These include high yielding onion varieties for Rabi and Kharif planting, chilly varieties suitable for rainfed conditions, early maturing pea variety and a variety of watermelon with high sugar content. Okra varieties of resistant to yellow vein meesle mosaic have also been developed.

4.89 In potato, use of true potato seed (TPS) has received major emphasis and three new high yielding TPS lines have been identified for large scale testing on farmers field. In tuber crops, 5 new varieties were released during the year which include a short duration (7 month harvest) variety of cassava.

4.90 In plantation crops, four improved hybrids of coconut, three new selections of cashew and four in spices have been recommended for release. Laccadive ordinary X Chowghat Orange Dwarf and Laccadive Ordinary X Gangabondam coconut hybrids have also shown tolerance to moisture stress situations. For root wilt of coconut, association of Mycoplasma like organisms (MLO) has been confirmed.

4.91 Tissue culture technique for oil palm propagation using explant from adult plants has been developed successfully. About 2 lakh teners hybrid seeds of oil palm have been produced during the year for distribution to different states.

Soil Science

4.92 Efforts were continued to bring out soil map in the established time-frame by the National Bureau of Soil Survey and Land use Planning. The linkage programme with land Resource Development Centre, U.K. was finalised to elevate the training centre at the Bureau to an international level.

4.93 A major emphasis in the Rainfed Farming Research related to evaluation of watershed approach to management of drylands, besides the evaluation of remunerative intercropping system, water conservation measures and water-harvesting systems. The other areas where significant research effort was devoted were amelioration of saline and alkali-affected soils, micronutrient deficiencies and their correction and agrometeorology.

Agricultural Engineering

4.94 Agricultural engineering and technological research helped in development of a safety device for diesel irrigation engine, a chain pump for lifting water in tribal areas, improved drainage techniques, seed metering device for sowing mustard, seed-cum-fertilisers drills, tractor mounted groundnut planter, self-propelled sprayer and few other devices for working on various agricultural operations. Several technological innovations including control of storage pests with bio-gas, process for bottling sugar-cane juice, briquetting coir pith, process for production of Soyoflakes and develppment of bagasse dryer made during the year.

Animal Sciences

4.95 Under animal sciences research has been undertaken in different livestock species. Under the Project Directorate on Cattle Improvement, evaluation were made of the milk yield, age of the first calving, calving intervals and effect of challenge feeding at milk production in half breds and 3|4 breds which showed significant higher milk yield potential. Researches on sheep for wool showed a marked improvement in all the production traits without deterioration in fertility. The work on sheep for mutton revealed that Nellore synthetic lamb had higher average daily gain and better efficiency of feed conversion than the Nellor lambs.

Fisheries Sciences

4.96 Among the major achievement during the year are research on marine sector, due attention was given to vast fisheries resources in and around Andaman & Nicobar and Lakshadweep Union Territories. In the field of mariculture breeding and rearing of black lipped pearl oystar was another breakthrough. In the field of fisheries technology, a design for fabrication of bio-gas digester and a solar processing monitor for measuring environmental parametres during dry process were made.

Agricultural Education

4.97 On the pursuation of ICAR, Rajasthan Government established the Rajasthan Agriculture University with headquarters at Bikaner. A new Agricultural University named the Indira Gandhi Krishi Vishwavidyalaya was established at Raipur in Madhya Pradesh. Some agricultural universities established new colleges of agricultural engineering and veterinary science. Under the UNDP assisted project, 11 new centres for advance studies on post-graduate agricultural education were established.

Agricultural Extension Education

4.98 For transfer of technology ICAR is implementing National Demonstration Project, Krishi Vigyan Kendras, Lab to Land programme and operational research projects. During 1987-88 national demonstration operated in 48 districts and organised about 5 thousand demonstrations on farmers fields. Testing and verification of technology and constraint analysis are being done in field conditions through 152 Operational Research Project Centres. New operational research centres on watershed management for demonstrating the technique of water harvesting and new cropping systems by using protective irrigation have been established. Eighty-nine Krishi Vigyan Kendras have continued their transfer of technology technique by training farmers rural youth and women and benefited over 1,50,000 farmers, farm women and young farmers during the year. 101 lab to land centres have demonstrated low cost agricultural technology to small and marginal farmers for improving productivity, cropping employment and generating income.

4.99 The ICAR had appointed a Committee under the Chairmanship of Dr. G. V. K. Rao former Member, Planning Commission to review the existing organisational structure, personnel policies and functional role of ICAR. The Committee has already submitted the report and the same is being examined. Some of the important recommendations are mentioned below:

(1) The Committee has recommended that as in the CSIR, the Governing Body of ICAR should be truly be professional in nature and should primarily have a membership of scientists related to agriculture and allied areas. The Governing Body of Council should act as "think tank" providing leadership and guidance in all matters relating to agricultural research and education. Review Committee has recommended revised composition of the Governing Body.

(2) The Committee has recommended that the strength of personnel at the headquarters, both of technical and administrative categories should be critically reviewed by a professional management institute like the IIM, Ahmedabad. Meanwhile the strength of DDGs and ADGs may be frozen at the present level and if possible ICAR should try to reduce the number of posts at these levels through deployment else where. There should be no posts of scientists below the level of ADGs at the headquarters.

(3) The posts of DDGs, ADGs, Directors etc. involving research managerial function should be filled by direct recruitment on tenurial basis. However, for tenurial appointees adjudged suitable for continued employment in ICAR, there should be a provision for absorption in the ARS in equivalent grades. For recruitment to these posts, it is not necessary to prescribe the requirement of research management experience as an essential qualification.

(4) The Committee had made recommendations for giving more financial autonomy to ICAR and its national level and other research institutes for streamlining financial procedures. The Committee has suggested that financial structure chosen for an institution should be such as to promote flexibility in operation and full autonomy consistent with the required degree of accountability to ensure a good return on the investments made on the institutions. It is, therefore, necessary that ICAR should develop its own financial service and financial rules and also to simplify its working procedure on the lines of CSIR, Department of Atomic Energy.

(5) The Committee has further recommende that the project implementation committee (PIC)|EFC (Expenditure Finance Committee) procedures should not be applied to ICAR for sanctioning the plan schemes. Similarly, sanction of additional posts, projects of vehicles and works programme wherever these are the part of the plan scheme, should be looked into by the ICAR itself and finalised by the Governing Body without reference to Finance Ministry.

(6) The Review Committee recommended that to assure further autonomous functioning of Institutes necessary technical-cum-financial executive powers, beyond the power of Directors should be vested with the Institute's Management Committees. These committees should in fact, perform functions for the Institute the way the governing body does for ICAR or the Board of Management for Agricultural Universities.

(7) The ICAR may not start any new Institutes during next 5 years except through regrouping of existing activities and redeploying the existing resources. It should rather consolidate the present set up and provide it a greater financial support.

PROGRAMME FOR 1988-89

Crop Sciences

4.100 Main work on evolving of new varieties of crops, collection and maintenance of germplasm resources of all crops, continuous improvement of existing varieties and work on plant protection activities will continue under various National|Central Research Institutes, National Research Centres and All-India Coordinated Research Programmes for various crops during the year. To accelerate exploration evaluation programme, the National Bureau of Plant Genetic Resources will strengthen its recently created centre at Srinagar for North Western Himalayas, particularly for cold arid tract and will establish a centre at Ranchi for carrying out germplasm collection work in tribal belt of Eastern Region. It is also proposed to open station in the Andaman & Nicobar Islands for offshore quarantine facilities and for undertaking explorative activities. In addition to continuance of existing projects on sugarcane, research emphasis will be laid on screening for drought resistance, red rot resistance varieties. Work on V.F.C. tobacco grown in Northern light soils of Andhra Pradesh will be started at new stations in the State. Indian Grassland and Fodder Research Institute in addition to continuing its activities will take up new research work on farming system based fodder production technology and basic researches in Silvipasture technology.

4.101 Research on oilseeds will continue at National Research Centres and through All India Coordinated Research Projects for different oilseeds. Improved high yielding seed and oil yielding varieties|hybrids possessing inbuilt resistance|tolerance to various biotic and a biotic stressess may be developed. It is also proposed to organize short-term and medium-term training programmes for senior officials and Subject Matter Specialists engaged in oilseeds research and development programmes at National Communication and Training Centre started at Directorate of Oilseeds Research, Hyderebad.

4.102 Research on increasing oil content and improvement in quality components of oilseeds as well as production of breeder seeds of important oilseeds, namely, groundnut, soyabean, rapeseed, mustard, niger, sesamum, linseed, sunflower, saffower and castor should be undertaen at various research centres and centres of All-India Coordinated Research Projects on Oilseeds.

4.103 Fibre crop research during 1988-89 will emphasise on breeder trals with varieties and hybrids to identify promising varieties in different staple length for different agro-climatic zones of the country and short duration varieties for rained and rice fallows tracts in the case of cotton. Jute research work during the year will undertake research work on genetic upgradation of fibre quality, standardising sowing methods and refining retting processes to improve quality of fibre. In the case of mesta, determination of effective herbicides on weed control for higher quantity of fibres at reduced cost and improving production technology of producing paper grade mesta would be priority research area.

Horticulture

4.104 Research facilities and programmes of the horticultural institutes will be strengthened further. The Central Horticultural Experiment Station sanctioned for establishment at Octacamund under Indian Institute of Horticultural Research, Bangalore shall be started for undertaking research on seed production of temperate vegetables and ornamental crops. Breeder seed production programme of vegetables and, potato shall be strengthened further. Central Institue of Temperate Horticulture will be established and National Research Centres on Arid Horticulture, Banana, Medicinal and Aromatic Plants, Onion and Garlic and Orchids will be started to undertake mission oriented research on these crops. Programme of research on horticultural crops will be initiated under the All India Coordinated Research Project on Tissue Culture. The existing technical programme of various crops will be reviewed further during the annual workshops of different coordinated projects and need based research on crop improvement agro-techniques, control of disease and insect pests and post harvest technology will be continued besides basic and applied research at the Institutes.

Soil Sciences

4.105 Work on soil sciences at central soil Salinity Research Institute, Soil and Water Conservation Research and Training Institute and National Bureau of Soil Survey and Land use Planning would be continued on alternate drainage system for water table salinity control and dissemination of farming technology through Lab to Land programme. Soil and water conservation research will emphasise on agro-forestry aspects and evaluation of mechanical measures on sloping lands for runoff and soil loss. Work on interpretation of landsat imagery on 1 : 250000 scale will be completed shortly by National Bureau of Soil Survey and land use planning. Central Institute of Post-harvest Engineering and Technology will give emphasis to develop post-haryest technology specifically for primary processing operations at rural level while Central Agricultural Research Institute for Andaman and Nicobar Islands will devote its energy for research work on coconut based farming system on multi-storey cropping including spices, fodder grasses, tuber crops and technology for brackish water fish culture.

4.106 Other major programme of research proposed for 1988-89 relate to develop a basis for recommending fertiliser doses physiology of Azospirrillum and groundnut rhizobium in association with plants and nitrogen fixation in rice-eco-system in relation to water regimes. Research work on dryland agriculture will emphasise on production and field evaluation of enrich compost and using microbial inoculants and rock phosphate.

Agricultural Engineering

4.107 Research on agricultural engineering aspects proposed during 1988-89 include major programme for technology development to benefit the farmers at the rural level, research problem related to oilseed processing,. development of new tools and implements and to develop and identifying the packages of implements which are technically and economically feasible. Research work on certain agricultural machines like power tillers, planters and uses of different devices for attachment with such implements would be continued.

Animal Sciences

4.108 Priority research programme for 1988-89 in animal sciences include improvement of vaccine against clostridial infections in sheep and goats by Indian Veterinary Research Institute (IVRI) and emphasise on analysis of formalin treated milk products, storage of whole milk powder (WMP), renovated ghee quality assesment and indigenous products manufacturing from milk by National Dairy Research Institute (NDRI) Karnal. Alternate strategies would be worked out for drought affected areas with greater emphasis on fodder crops. Ongoing research work of germplasm collection and methodology for conservation of animal genetic resources would continue at National Bureau of Animal Genetic Resources and at All India Coordinated Research Projects (AICRP) on Animal Sciences. National Research Centre on Mithun in Nagaland and National Research Centre on Yek in Arunachal Pradesh have envisaged to establish small herds of mithun and yak to carry out performance studies on the pure bred performance under semi-range confined conditions. It is proposed to undertake research work on the genetic performance of Nili Ravi buffalows at Ludhiana centre of Buffalow Resarch Institute, and also take up nutritional health and management studies.

Agriculure Education

4.109 Under agricultural education continuing schemes for supporting students by merit-cum-means scholarship, post graduate fellowship, award for post doctoral fellowship, post-matric shcolarship for Scheduled Castes and Scheduled Tribes and schemes for apprenticeship|internship for veterinary graduate would be continued. ICAR will continue giving assistance to agricultural universities, and agricultural colleges of central universities for identified items on existing norms. Assistance to agricultural universities would also be given for implementation of University Grants Commission pay scales.

Agricultural Extension Education.

4.110 The programme for 1988-89 for National Demonstrations will be conducted for 3 crops rotations at 10 places, 20 demonstrations with two crop rotations and 29 demonstrations with single crop and one demonstration on problem soil would be undertaken. Under operational research programme, it s proposed to continue the work undertaken and not completed during the previous year specially under watershed resources development project, 1988-89 programme for Krishi Vigyan Kendras emphasis on training larger number of farm women as they are now considered as active force in the development of agriculture production system. Stress would be given on training in dryland agriculture, oilseeds and pulses production while small farmers and landless labourers will be given training on income generating programme, like sericulture, fisheries, poultry, goatry, duckery, rabbit farming etc. Operational Research Projects for Scheduled Castes and other communities emphaise on programme of crop production covering introduction of high yielding varieties, mixed sequence, inter-cropping and development of orchards of fruits crops, vegetable farming and gardening. The target under Lab to Land Programme for 1988-89 is to get more financial support for programme to cover 50,000-75,000 farm families has been proposed for 1988-89.

Soil and Water Conservation

4.111 Of the country's total geographical area of 329 million hectares, about 175 million hectares are so degraded as to require special measures for restoration to productive use. The average annual loss of nutrients from the effected land is estimated at 5.1 to 8.4 million tonnes. Water and wind erosion are the two major causes that account for an affected area of 150 million hectares. The Seventh Plan accordingly lays emphasis on intensification of soil and water conservation measures.

4.112 Up to the end of Sixth Plan, an area of 29.38 million hectares had been treated with various soil and water conservation measures at a total cost of Rs. 1212.30 crore. During the Seventh Plan, an additional 6.92 million hectares are targeted for coverage by appropriate measures. In the first two years of the Plan 1.84 mha have been covered. During 1987-88, against a target of 0.85 mha, the benefit of soil and water conservation measures were extended to a further 0.87 mha. For 1988-89, a physical target of 0.85 mha has been fixed. Apart from a sizeable provision in the State Plans, an amount of Rs. 38.00 crore has been provided in the Central Plan for 1988-89 to achieve this target.

4.113 Evaluation by external agencies of the impact of soil and water conervation measures undertaken in the catchments of selected river valley projects, covered by a major Centrally sponsored scheme launched for this purpose, have confirmed positive results. Apart from a reduction in the rate of siltation and improvement in irrigation potential, including through groundwater recharge, direct benefit in terms of additional area under crops, increased employment opportunities and higher incomes have been recorded in treated areas.

Land Reclamation and Development

4.114 It is estimated that as much as 80 million hectares of the country's net cultivated area of about 142 million hectares, suffer from various forms of soil degradation. Of this, some 25 million ha. have been identified as degraded through special problems, including 8 mha suffering from salinity|alkalinity, 3.97 m.ha. from ravines and gullies, and 4.36 m.ha. subject to shifting cultivation. The Seventh Plan therefore attaches high priority to land stock improvement, covering reclamation and development of these problem areas to bring them back to productive use. This involves concerted efforts from a number of agencies at the Centre and in the States, including the Indian Council of Agricultural Research and State Agricultural Universities for technological support, the State Land Use Boards, All-India Soil and Land Use Survey Organisations and State Soil Survey Organisations.

4.115 A major part of alkali soils are found in the States of Haryana, Punjab and Uttar Pradesh. A Fifth Plan Centrally sponsored scheme for reclamation of alkali soils in the three States, which had been transferred to the State sector during the Sixth Plan, was revived in the Sevenh Plan, with a target of reclaiming 1.51 lakh hectarts of affected land. Out of the approved Seventh Plan outlay of R. 21 crores as the Centre's share, the expenditure till the end of 1987-88 is placed at Rs. 9.98 crore. During 1988-89, it is proposed reclaim 31 thousand hectares, for which a Central provision of Rs. 5.50 crore has been made.

4.116 As part of the strategy for accelerated development of dacoity prone areas of Uttar Pradtsh, Madhya Pradesh and Rajasthan, a scheme for reclamation and stabilisation of various areas has been taken up by the three States in their State Plan sectors with full financial assistance from the Centre. Although the scheme launched in 1987-88, was drawn up to cover by the end of the Plan period 1.64 lakh ha. of ravinous areas in 28 districts of the three States with appropriate ravine control and development measures at a total cost of Rs. 82.70 crore, financial provision for it is being made on a year to year basis and no allocation for the Plan period as a whole has been committed. During 1987-88, a provision of Rs. 12 crore was made for treatment of 14,638 ha. of land construction of 664 km. of peripheral bund.

During 1988-89 it is proposed to cover 30,000 ha. at a total cost of Rs. 14.50 crores.

4.117 A scheme for the control of shifting cultivation (Jhuming) in the seven North-Eastern States, Andhra Pradesh and Orissa, which account for 95 per cent of the country's shifting cultivators, has been launched from 1987-88. The scheme aims at weaning away the Jhumia from his age-old practice by providing him a viable alternative in the form of developed land for settled cultivation and other subsidiary income generating activities, and thus saving the land from the deleterious affects of shifting cultivation. It is expected that 25000 Jhumia families will be settled under the scheme over a five year period. This State sector scheme is being funded fully by the Centre to the tune of Rs. 45 crore in the Seventh Plan at the rate of Rs. 15 crores per year.

Agricultural Planning based on Agro-climatic Zones

4.118 Planning Commission has undertaken an exercise for organising agricultural planning based on agro-climatic zones taking into consideration soil type, climate and water resources in these zones. On the basis of this exercise 15 broad agro-climatic zones have been delineated. The proposed agro-climatic zones are :—

(1) Western Himalayan Region.
(2) Eastern Himalayan Region.
(3) Lower Gangetic Plains Region.
(4) Middle Gangetic Plains Region.
(5) Upper Gangetic Plains Region.
(6) Trans-Gangetic Plains Region.
(7) Eastern Plateau and Hills Region.
(8) Central Plateau and Hills Region.
(9) Western Plateau and Hills Region.
(10) Southern Plateau and Hills Region.
(11) East Coast Plains and Hills Region.
(12) West Goast Plains & Ghats Region
(13) Gujarat Plains and Hills Region.
(14) Western Dry Region.
(15) Island Region.

Cropping patterns suitable for each region will be worked out as also non-crop based agricultural activities like forests, animal husbandry and fisheries. Agro-processing activtiies will be emphasised. In the Seventh Plan an attempt will be made to develop a package of more appropriate projects for each region, as also involve the financial institutions more directly in he agricultural planning process. The studies| surveys proposed to be undertaken in these zones would be the basis for the formulation of the Eighth Plan.

4.119 For this purpose, 15 zonal Planning Teams have been constiuted. They are headed by a Senior Vice Chancellor of the Agricultural Universities in the region. The Planning Teams include the Agricultural Production Commissioners, other concerned Secretaries, representatives of Financial Institutions, a member from the voluntary organisations of the area, representatives of the Central Ministries concerned with Agriculture, Irrigation, Environment and Agricultural Research. The Director of one of the agro-climatic research centres in the region is the Member-Secretary of the Team. The teams have already commenced their work.

Animal Husbandry

4.120 Animal Husbandry plays a vital role in the country's rural economy. The various livestock development programmes have a vast potential of generating employment avenues so as to improve the socio-economic conditions of the rural masses, particularly, small/marginal farmers, agricultural labourers, educated unemployed youth and women folk. Animal Husbandry programmes are to meet the requirements of milk, eggs, meat and wool, draught power and rural transport.

4.121 The targets for 1988-89 and the anticipated achievements for 1987-88 in respect of selected programmes of Animal Husbandry are given in the table below :—

TABLE 4.7

Target and Anticipated Achievements

Sl. No.	Item	Unit	1987-88		1988-89 Targets
			Target	Anticipated achievement	
1.	Milk	Million tonnes	45.90	46.00	48.00
2.	Eggs	Million Nos.	16959	17130	18037
3.	Wool	Million Kgs.	41.83	43.70	43.50
4.	Intensive cattle Dev. Projects	Nos.	137	133	138
5.	Frozen semen bull stations	Nos.	58	51	58
6.	Inseminations with exotic bull semen	Million Nos.	9.80	9.22	9.68
7.	Cross-bred female animals	Million Nos.	6.64	6.42	7.28
8.	Sheep & Wool Extension Centres	Nos.	1559	1555	1572
9.	Intensive Sheep Development Projects	Nos.	33	34	34
10.	Intensive egg & Poultry Production-cum-marketing Centres	Nos.	118	116	120
11.	Veterinary hospitals & dispensaries	Nos.	16,680	16,928	17·211
12.	Veterinary first-aid centres	Nos.	20,064	20,455	20,546
13.	Liquid milk plants	No.	190	190	196
14.	Milk product factories	Nos.	30	28	30

4.122 Cross breeding of indigenous cattle with exotic dairy breeds was continued and 9.22 million inseminations were conducted with semen of high quality bulls during 1987-88. Besides stress was laid for the creation of facilities for introducing frozen semen technology in an expanded and intensive manner. The Central scheme of frozen semen technology for cattle and buffallo development outside operation Flood project areas was implemented in 18 States covering 84 districts. Three frozen semen stations were established one each in Punjab, Sikkim and Tamil Nadu. The Central Frozen Semen Production and Training Institute—Hessarghatta produced 6.60 lakh doses of frozen semen during the year. The coordinated cattle breeding programme for production of progeny tested cross-bred bulls under the field conditions was continued in the States of Kerala, Assam, Orissa and Andhra Pradesh. This programme will help the various States to utilise the merited bulls and semen for faster improvement of cattle and buffaloes with the ultimate aim of increasing milk production in the country. Six progressive goshalas were provided financial assistance for the development of resources like land, irrigation facilities, purchase of bulls etc., in the States of Andhra Pradesh, Haryana and Delhi. During 1987-88, it is noteworthy that several such institutions, in the drought affected States of Gujarat and Rajasthan saved a large number of livestock inspite of their limited resources.

4.123 The objective of Special Livestock Production Programme is to provide financial and technical assistance to the small and marginal farmers and agricultural labourers in animal production and to assist them in supplementing their income through rearing of livestock. The beneficiaries are encouraged to rear high producing calves of cows and buffaloes besides raising piggery, poultry, and sheep in small units. The programme was continued in 183 districts in 25 States and Union Territories and assisted 59,000 beneficiaries. 30 per cent of the beneficiaries selected under the programme belong to Scheduled Castes and Tribes.

4.124 During 1987-88, the seven Regional Forage Production-cum-demonstration stations conducted about 12,000 demonstrations and these institutions were also utilised as training ground for farmers. These stations and the central fodder seed producion farm—Hessarghatta produced 3500 quintals of quality seeds of high yielding fodders, pasture grasses and legumes during 1987-88 for the use of farmers and State Governments. Under the Central scheme on Fodder Minikit Demonstration as many as 51,250 Minikits were supplied to the farmers. The programme proved to be quite popular with the farmers. In the wake of 1987-88 drought and consequent shortage of fodder in the drought|flood hit areas the Government of India launched a special fodder production programme at a total cost of Rs. 8.02 crores for the seven affected states of Rajasthan, Gujarat, Madhya Pradesh, Tamil Nadu, Punjab, Haryana and Bihar.

4.125 The Central Poultry Breeding Farms at Hessarghatta, Bombay, Bhubaneswar and Chandigarh were continued for the production of high yielding egg type and broiler type chicks. These farms produced about 5 lakh egg type and 5.10 lakh meat type chicks for distribution to the State Poultry Breeding Farms to meet the requirement of farmers. About 100 in-service personnel of public and private sector organisations in various disciplines of poultry farming were trained at the central Poultry Training Institute—Hessarghatta during the year. The Central Duck Breeding Farm—Hessarghatta produced 70,000 ducklings and supplied 15,000 hatching eggs to the farmers during the year. Marketing of eggs at regional and national levels was continued by the National Agricultural Cooperative Marketing Federation of India (NAFED). This organisation handled about 35 million eggs during 1987-88.

4.126 The aim of the sheep development programmes is to improve the quality and increase the quantity of wool through scientific breeding so as to make the country self sufficient in wool production and to increase the production of meat. To fulfil this objective, 31 sheep and wool extension centres were started in Jammu & Kashmir and Uttar Pradesh besides starting one intensive sheep development project in Rajasthan in 1987-88. The Central Sheep Breeding Farm Hissar supplied 700 quality rams to the various State Sheep Breeding Farms for further multiplication and distribution to shephards so as to improve their socio-economic status. In order to provide regulated markets sheep and wool development corporations have been organised in the States of J&K, Rajasthan, Gujarat, Maharashtra & Karnataka.

4.127 The various livestock production programmes launched in our country cannot succeed unless efficient animal health cover facilities are provided to the farmers. Keeping this in view, as many as 455 Veterinary hospitals and dispensaries were set up during 1987-88 making a total of 16,928. Besides 298 Veterniary First-aid Centres were established raising the total to 20,455 by March, 1988. About 250 disease diagnostic labs. were functioning in different States for quick diagnosis and treatment of various diseases. The scheme for the systematic control of livestock diseases of National importance like Brucellosis, contagious Bovine Pleuro-Pheumonia, T.B., Swine fever, Canine Rabies, Marek's disease and pullorum was continued during the year. The Centrally Sponsored Scheme for the creation of "Disease Free Zone" comprising the four southern-most districts of Kanyakumari, Trivandrum, Quilon and Pathanamthitta was continued to help the country to export livestock products in an increasing manner to earn foreign exchange. With a view to boost up the production of viral vaccines, 16 State Veterinary biological production centres were strengthened for the production of tissue culture vaccines.

Programmes for 1988-89

4.128 The cross breeding of cattle with exotic dairy breeds and improvement of buffaloes would be continued in all the States during 1988-89. As many as 9.68 million inseminations with exotic bull semen would be done during the year. The Central Sector scheme of introduction of frozen semen technology in areas outside Operation Flood Project would be continued. The Scheme of progeny testing of cross-bred bulls under the field conditions would be continued to make available progeny tested bulls to achieve faster improvement of cattle and buffaloes. It is proposed to establish two intensive cattle development projects in Kerala and Tamil Nadu. As many as five new goshalas would be taken up for assistance to produce high quality indigenous|cross-bred heifers. The development of well established indigenous breeds of cattle and buffaloes would be continued so as to conserve and further improve the quality germ plasm already available in the country. In this context some of the selected State Cattle Breeding Farms having these breeds would be strengthened in the States of Maharashtra. Andhra Pradesh, Kerala, Gujarat, Haryana, Karnataka, Madhya Pradesh, Punjab Rajasthan and Uttar Pradesh.

4.129 The infrastructural facilities would be strengthened under the I.C.A.R. Scheme of All India Coordinated Research Project on buffaloes. It is envisaged to coordinate and link the research work on buffaloes under this project with the facilities created at the recently started Central Institute for Research on Buffaloes at Hissar to achieve quicker results. The Institute at Hissar and its sub-stations in Punjab and Gujarat will continue the envisaged research work on the famous buffalo breeds of Murrah, Nili, Surti and Jaffarabadi. The Central Institute for Research on goats at Makhdoom (U.P.) would be further developed so as to make available good quality goats for the benefit of poor.

4.130 To improve the country's vast livestock through appropriate scientific mehods, the availability of nutritious feed and fodder is a must. A new Centrally Sponsored Scheme for fodder seed production would be implemented in the various States with a view to increasing the production of quality fodder seeds o meet the growing requirements of farmers. The seven Regional Stations for Forage Production and Demonstration Stations would continue to provide both scientific technology and quality seeds of high yielding fodder crops to the farmers. It is envisaged to continue the multiplication of the seeds of the three species of stylosanthasis grass evolved by these stations so as to intesify the programme of revegetation of wastelands by the various agencies in the country. As many as 12,600 demonstrations would be conducted so as to familiarise the farmers with the latest technology transfer in this field. It would be endeavoured to produce 4,000 quintals of quality fodder seeds by the Seven Regional Forage Production Stations and the Cenral Fodder Seed Production farm Hessarghatta during 1988-89. As many as 75,000 fodder Minikits would also be distributed to the farmers to achieve the objective of augmenting fodder resources. The second fodder seed production farm established recently at Barbetta in Assam would be strengthened to meet the growing requirements of farmers of Eastern region.

4.131 Poultry is the most efficient convertor of feeds into human food of high nutritional value and this sector provides additional income and job opportunities to a large number of persons especially of the Weaker Sections. The egg production has increased from 9426 million (triennium ending 1980-81) to 16403 million (trennium ending 1987-88), which means at the compound growth rate of 8.3% per annum. To support this programme by way of making available high yielding poultry stocks to the States and farmers it is envisaged to strengthen the infrastructural facilities at the four Central Poultry Breeding Farms at Bombay, Bhubaneswar, Chandigarh & Hessarghatta during 1988-89. It is expected that 6.0 lakh hybrid egg types chicks and another 6.50 lakh meat type chicks would be supplied to the State farms for further multiplication to adequately meet the requirements of poultry farmers. A new scheme of market intervention in respect of eggs would be introduced by the G.O.I., to begin with, in the States of Punjab, Andhra Pradesh & Tamil Nadu in 1988-89. The funds for this would be made available by the National Egg Coordination Committee, the State concerned and the G.O.I. It is envisaged to provide financial assistance to strengthen the popultry corporations in the States of Madhya Pradesh, Gujarat, West Bengal and Jamu & Kashmir during 1988-89 in order to ensure the availability of quality poultry feed at reasonable prices and providing outlet for marketing of eggs and poultry meat to safeguard the interest of both producers and consumers. As many as three intensive egg and popultry production-cum-marketing centres are proposed to be established in Rajasthan and U.P.

4.132 The programme relating to special livestock production programme would be continued during 1988-89 in an intensive manner for the rearing of high yielding cross-bred heifer calves and establishment of sheep, poultry and piggery production units by the small|marginal farmers and agricultural labourers. This programme would benefit about 70,000 such families with the ultimate objective of improving their socio-economic status.

4.133 The quarantine stations at Delhi, Madras, Bombay and Calcutta would continue to check the health status of livestock and birds after their import into the country and also prior to export from India. Under the programme of Disease free zone new area around sea ports of Bombay, Kandla, Calcutta, Cochin and Tuticorin shall be covered. These ports have a sizeable volume of international trade movements of livestock and livestock products . During 1988-89, a new strategy for bringing the incidence of Rinderpest disease to zero level shall be introduced throughout the country. It is proposed to strengthen the disease diagnostic labs in the various States and U.Ts by providing specialist facilities and latest technological innovations. Steps would be taken to initiate commercial production of Theileria vaccine at I.V.R.I. (Izatnagar U.P.) and Indian Immunologicals Hyderabad to safeguard the valuable crossbred and exotic stock. Efforts would be made to acquire land for the setting up of National Vety. Biological Products Quality Control Centre during 1988-89. As many as 283 new veterinary hospitals and dispensaries would be established making a total of 17,211 such institutions by the end of March, 1989.

4.134 A Centrally Sponsored Programme to provide equity capital to the existing State slaughter house corporations would be continued during 1988-89 with the objective of modernising the slaughter houses in the country. The objective of the scheme is to supply wholesome and hygienic meat to the public. It is envisaged to modernise the slaughter houses in Srinagar, Bangalore and Hyderabad during 1988-89.

4.135 In order to ensure remunerative prices to the sheep breeders it has been proposed to organise wool corporations|boards in the States of Andhra Pradesh, Bihar, Uttar Pradesh and Himachal Pradesh during the year. With a view to increase the production of fine wool suitable for the apparel manufacture it is envisaged to import about 1500 Rambouillet sheep from U.S.A. for cross breeding local sheep in the States of J & K., Uttar Pradesh, Rajasthan, Haryana, Madhya Pradesh, Gujarat & Bihar. Similarly, the Government of J & K would import about 500 Corriedale sheep from Australia for increasing wool & mutton production. The Government of J&K has also planned to import 580 broiler type rabbits from U.S.A. and 120 Angora rabbits from West Germany during 1988-89. The objective is to augment the production of rabbit meat and to make available Angora Wool for fancy garments. As many as 17 sheep and wool extension centres would be set up in the States of J&K, and Rajasthan in 1988-89 making a total of 1572 such centres.

Dairy Development

4.136 Under the Operation Flood III Project a sum of Rs. 51.41 crores were generated by the National Dairy Development Board during 1987-88, against Rs. 25.84 crores during 1986-87 through sale of gift commodities i.e. butter oil|butter and skim milk powder. The National Dairy Development Board disbursed a sum of Rs. 91.43 crores during 1987-88 against Rs. 118.73 crores during 1986-87 for the implementation of the various project activities in different States and U.Ts.

4.137 An important development during the year was the enactment of National Dairy Development Board (N.D.D.B.) Act, 1987. The objective of the Act was to declare the N.D.D.B. to be an institution of National Importance and to provide for the vesting in that body corporate, the undertakings of the erstwhile Indian Dairy Corporation with a view to provide for the administration and the carrying on the functions to be performed and for matters connected therewith and incidental thereto, more effectively throughout the country. The Act came into force with effect from 12th October, 1987.

4.138 As many as 21 States and the Union Territory of Pondicherry implemented the Operation Flood Project in 1987-88 covering as many as 170 hinterland milk sheds. As many as 53,430 dairy cooperatives with a total membership of 5.46 million farmer families were organised by the end of the year. Under this project procurement of milk has reached 10.00 million litres per day from the rural areas during the year 1987-88.

4.139 To facilitate long distance transport of milk, 98 rail milk tankers with a total capacity of 34.45 lakh litres have been procured. Besides a total of 862 road milk tankers with a total capacity of 93.82 lakh litre had so far as been comissioed. The facilities of long distance transport of liquid milk and storage facilities for skim milk powder and butter oil has greatly assisted in maintaining a steady supply of milk to meet the growing requirements of the important cities besides balancing the regional and seasonal fluctuations in respect of milk.

Programmes for 1988-89

4.140 It is envisaged to make efforts to finalise the operation Flood Project proposals so as to implement the programme in Mizoram during 1988-89. The State Governments of Meghalaya and Manipur would be persuaded to initiate this project during the year. It is proposed to cover 3 additional milk sheds during 1988-89 making a total of 173 milk sheds. It is targetted to build up the peak procurement of 11.40 million litres of milk per day by the end of the year. As many as 5,000 additional dairy cooperatives would be organised under the OF project during the year. It is also proposed to enroll 3 lakh farm families in the societies making a total of 5.76 million families by the end of 1988-89. A total of 10.9 million milch animals would be covered under the cooperative ambit.

4.141 The expansion programme under the Delhi Milk Scheme is in progress and will be completed by the end of June, 1988. This milk plant would have a processing capacity of 5.40 lakh litres of milk, after expansion, against the present capacity of 4.15 lakh litres per day. It has been decided to replace milk bottles with milk pouches gradually, during 1988-89 in order to avoid losses on account of breakage of bottles etc. The Mother Dairy, Delhi which has a capacity to process 6.50 lakh litres of milk per day would be continued during the year.

4.142 The two Centrally Sponsored integrated dairy development projects (i) for the districts of Sibsagar, Dibrugarh and Darrang and (ii) Cachar Distt. of Assam would be continued and about 80 dairy cooperatives would be organised during 1988-89.

4.143 A similar project in Arunachal Pradesh would be continued during 1988-89. The Swiss aided dairy development project in Northern Kerala would be implemented in the five districts of Calicut, Kasargode, Wynad, Mallapuram & Palghat. It is proposed to establish a new dairy plant at Calicut under this project. The Dairy Development Programmes in the State sector would aim at strengthening of the existing dairy plants, with a view to making them economically viable. It is envisaged to establish 6 new fluid milk plants in the States of Karnataka, Kerala, Maharashtra and Orissa during 1988-89. Besides work would be initited for the setting up of two milk products factories in Kerala and Sikkim.

4.144 It is envisaged to coordinate the different programmes under the integrated rural development with that of operation flood project with the aim of (i) providing supplementary income to small and marginal farmers, agricultural labourers, scheduled castes and tribals and (ii) to feed adequately the different milk plants in the country. It is also proposed to continue the programme of financial assistance to the farmers in the remote areas, where milk transportation is not easy, to enable them to convert their surpluss fluid milk into traditional products like Khoa, paneer etc. This would help the farmers to get remunerative price for their milk. It will be endeavoured to arrange training of farmers including women in modern livestock and dairying practices to provide profits in an increasing manner.

Fisheries

4.145 The fish production in 1987-88 both from Marine and Inland sources is anticipated at 31 lakh tonnes against the target of producing 32 lakh tonnes. However, Exports of marine products during 1987-88 is reported to have reached a figure of Rs. 410.55 crores from April, 1987 to January, 1988 as compared to Rs. 390.63 crores in the corresponding period of 1986-87. The quantity exported from April, 1987 to January, 1988 is 74211 tonnes against 71918 tonnes during the same period of the previous year.

4.146 The Inland fish production during 1987-88 is 13.00 lakh tonnes i.e. the same level as targetted. This was possible due to successful implementation of the developmental programmes and, in particular, the introduction of scientific fish farming in tanks and ponds by the Fish Farmers Development Agencies (FFDA), Pheuomenal increase in fish seed production, especially in West Bengal and construction of 11 fish seed hatcheries both under the World Bank aided schemes as well as National Fish Seed Farms for an anticipated fish seed production of 9300 millions, were the other achievements during the year.

4.147 The existance of a number of specialised institutes with specific tasks in the field of fisheries development is an important wing of fisheries department. The Fishery Survey of India (FSI) Bombay is responsible for surveying fishery resources of EEZ. The Institute has 6 zonal bases located at Cochin, Madras, Vizag, Goa, Veraval and Port Blair besides the base at Headquarters, Bombay. It undertaken exploratory surveys by botton trawling, purse sceining and long lining with its 10 large vessels and 7 medium vessels by cruise participation and systematic collection of information by scientists and prepare charts to depict the distribution and abundance of marine fihery potential by depth, distance and time. The collected information is published and passed on to maritime states. During 1987-88, an area of 98100 Sq. Km. has been surveyed by demersal trawling and 41200 Sq. Km. long lining.

4.148 The Central Institute of Fishery Nautical and Engineering Training (CIFNET) Cochin has two subordinate units at Madras and Vizag. It has 8 training vessels. The objective of the Institute is to create adequate technical manpower for operation of ocean going fishery vessels and also for manning the shore establishment. The Institute gave training to 95 mates and 98 Engine Drivers during 1987-88. The Integrated Fishery Institute, Cochin is also on-going Central Institute with several objectives viz. product development and test marketing of unconvenional varieties of fish in the domestic market. During 1987-88, the Institute processed 252 tonnes of fish and marketted 194 tonnes. The Central Institute of Coastal Engineering for Fishery (CICEF) Bangalore is responsible for identifying suitable sites for development of Brackishwater Fish Farms and preparation of project reports. The total area surveyed during 1987-88 for Brackishwater fish/prawn farming was about 1500 ha. of which 492 ha. have been selected for detailed project study.

4.149 The deep sea fishing harbours at Madras, Cochin, Roychowk and Visakhapatnam Stages I & II have become operational for deep sea fishing vessels. Work on Sassoon Dock fishing harbour is in progress and preparation of project report for locating a major fishing harbour at Paradeep is in progress.

4.150 Under the Centrally Sponsored Scheme of construction of on-going fishing harbours at minor ports, five minor fishing harbour and seven landing centres have been completed in 1987-88 making a total of 19 minor fishing harbours and 81 landing centres.

4.151 Fish Seed is the basic input for fish farming in tanks and ponds as well as fish production from several other resources. During 1987-88, eleven fish seed farms were constructed for producing 110 million fish seeds.

4.152 A net work of Fish Farmers Development Agencies (FFDA) has been established through out the country. By the end of 1987-88, 200 FFDA's (VIIth Plan target) have been set up and the additional water area brought under FFDA is 25,000 ha. and Farmers trained are 20000.

4.153 Under the Scheme of Beach landing crafts, 72 crafts were added during 1987-88 raising their total to 257. The crafts are given to the Fishermen Cooperatives at subsidised rates. The Fishermen are required to be mobalised initially only 5% of the cost of the craft under the scheme.

4.154 Under the new scheme of Motorisation of traditional crafts 1037 traditional boats were motorised during 1987-88.

4.155 Under Fishermen Welfare Programme, 6.62 lakh fishermen were covered under the scheme during 1987-88 including the renewal of Insurance in respect of the fishermen covered during 1986-87. The scheme of National Welfare Fund for Fishermen for providing civic amenities like housing, drinking water and recreation facilities was continued and 28 villages were covered during 1987-88.

Targets and Programmes for 1988-89

4.156 The targets for 1988-89 and achievements in 1986-87 and 1987-88 in respect of fish production, introduction of mechanised boats, fish seed production etc. are given below :

TABLE 4.8

Physical targets and achievements

Sl. No.	Item	1986-87 Achievement	1987-88		1988-89 targets
			Target	Anticipated Achievement	—
1.	Fish Production (lakh tonnes)				
	(a) Marine	17.13	19.00	17.35	17·55
	(b) Inland	12.29	13.00	13.00	13.80
	Total	29.42	32.00	30.35	31.35
2.	Mechanised boats (NOS)	23000	23800	23500	24500
3.	Fish Seed production (Million)	7850	9200	9300	10,500
4.	Water area under scientified farming (000 hec.) . .	150	175	175	225

4.157 It is seen that the fish production in the past has fallen compared to the targets which is mainly due to under exploitation of marine fish resources. The reason being that the scheme of introducing deep sea fishing vessels could not pick up and also due to delay in completion of infrastructure facilities such as fishing harbours, repair facilities etc. The Chartered policy and joint ventures have been reviewed and liberalised during 1986-87. As a result more deep sea fishing vessels are expected to be in position in the year 1988-89. The Seventh Plan target is to introduce 500 vessels.

4.158 The scheme of constructing fishing harbours at major and minor ports will continue. During 1988-89, it is planned to complete 5 minor harbours and 10 landing centres besides completing the spill over works as Sassoon Dock major fishing harbour. The project report for locating a fishing harbour at Paradeep wil be finalised in 1988-89 and processed for sanction.

4.159 The Central Institutes of Fisheries will continue the assigned tasks. F.S.I. will undertake survey of 40,000 lakh Sq. kms. during 1988-89. CIFNET Cochin will conduct training programmes to produce 100 mates and 100 engine drivers and IFP Cochin will take up processing of about 600 tonnes of fish. The target for CICEF is to survey 2000 ha. of Brackishwater area out of which 500 ha. will be selected for detailed project report.

4.160 On the Inland fisheries side, the target for 1988-89 is to complete 10 fish seed farms to produce 100 million fish seeds. The FFDA programme will continue in 200 FFDAs already set up and 17000 fish farmers will be given training besides covering an additional 15000 ha. water area for fish production. The scheme on reservoir fisheries development will be sanctioned during 1988-89 and the work will commence in Gujarat, Maharashtra and Karnataka.

4.161 Under the Brackishwater Aquaculture scheme, it is proposed to cover 500 ha. during 1988-89 for detailed survey and preparation of project report. It will be supplemented with the setting up of Brackishwater Fish|Prawn Development Agency with a target of 200 ha. in 1988-89.

4.162 The National Welfare Fund for fishermen for providing drinking water, housing etc. will continue and 20 fishermen villages will be covered in 1988-89. Under the Group Insurance Scheme, the target for 1988-89 is to cover 6.50 lakh fishermen under Group Insurance.

4.163 Twenty additional beach landing crafts are expected to be introduced in 1988-89 besides continuing the scheme of motorisation of traditional crafts with a target of 1229 Nos.

COOPERATION

4.164 The progress in the accomplishment of targets contemplated in the Annual Plan 1987-88 for important cooperative programmes and the corresponding targets envisaged for 1988-89 are given in the following Table :—

TABLE 4.9

Targets and Achievements – Cooperation

(Rs. crores)

Sl. No.	Item	1987-88		1988:89 Target
		Target	Anti-Achv.	
1.	Short term loans	3200	3200	4000
2.	Medium term loans	325	325	400
3.	Long term loans	750	700	850
4.	Marketing of agri. produce . . .	4400	4000	4800
5.	Retail sale of fertilisers .	2000	1800	2100
6.	Value of consumer goods distributed in rural areas	1900	1800	2000
7.	Value of consumer goods distributed in urban areas	2000	2000	2250

4.165 Notwithstanding the unprecedented drought in several States floods in the Eastern region of the country during 1987-88, the targets for disbursement of cooperative short-term and medium-term loans are likely to be achieved. In the wake of very severe droughts and floods in several States of the country, the NABARD initiated several measures to enable the banks to extend necessary credit assistance to the farmers affected by droughts|floods. In addition, NABARD also agreed to provide liberal refinance support for the Rabi programmes drawn up by the State Govts. with a view to off-setting crop losses during the Kharif 1987 season. The phenomenal expansion in the flow of credit in Bihar witnessed during 1987-88 is also likely to considerably make up the shortfalls in the disbursement of short-term and medium-term credit in respect of other States. It is reported that the consecutive occurrence of severe droughts|floods has seriously impaired the recovery of loans in several States. The mounting overdues in such States reduced the eligibility of the land development banks for refinance from NABARD and thus led to serious set-back in their operations. The shortfall in the achievement of target for retail sale of fertilisers has been partly due to stagnation in the credit flow and partly due to drought conditions in some States, which adversely affected the off-take of fertilisers. The fierce competition from private trade had also been another constraint. Some shortfall is also anticipated in the achievement of target laid down for marketing of agricultural produce through the cooperatives. Due to favourable market prices available to the farmers in 1987-88, the market intermention operations of NAFED and the State Cooperative Marketing Federations did not reach the expected levels. The distribution of consumer goods in rural areas also lagged behind the Annual Plan expectations mainly because of Civil Supplies Corporations in some States had carried out the distribution of consumer goods through their own branches and did not involve the cooperatives in this activity.

4.166 In the context of the Action Plan for Foodgrains Production recently finalised for being implemented in 169 districts in the country, there would be need to bring about significant expansion in the disbursement of short-term, medium-term and long-term credit as well as distribution of fertilisers through the cooperatives. The requirement of production credit in respect of the selected districts of the special Foodgrains Production Programme during 1988-89 as worked out by NABARD are given in Table No. 4.10. Larger credit support would also be necessary in the areas covered under special programmes like Pulses Development Programme, Special Rice Production Programme and National Oilseeds Development Project.

TABLE 4.10

Estimated Credit Requirements for special Foodgrains Production Programme and Share of Central Cooperative Banks during Annual Plan, 1988-89, as worked out by NABARD.

(Rs. in crores)

State	No. of districts covered	Proposed area under all selected crops (ha)	Production outlay	Credit requirements	Share of Central Cooperative Banks
1	2	3	4	5	6
1. Andhra Pradesh	8	1984400	436.57	245.57	184.18
2. Assam	3	631400	138.91	78.13	58.59
3. Bihar	18	3774100	849.74	478.01	358.50
4. Gujarat	7	760100	144.67	81.35	16.02
5. Haryana	7	1929400	521.36	93.26	219.95
6. Karnataka	9	987800	196.09	110.29	82.72
7. Madhya Pradesh	30	6989400	1480.16	832.57	624.43
8. Orissa	5	2432100	535.06	300.97	225.73
9. Maharashtra	12	1425600	286.36	161.07	120.81
10 Paojab	3	1199000	289.95	167.88	55·12
11. Tamil Nadu	8	2060300	453.27	254.96	191.22
12. Rajasthan	14	3637700	632.06	335.52	266.63
13. West Bengal	7	2808300	617.83	347.52	260.64
14. Uttar Pradesh	38	10101300	2262.26	1271.50	9539.34
	169	40720900	8844.29	4979.10	3734.34

4.167 With the help of NABARD a number of schemes have been introduced for rehabilitation and revitalisation of the cooperative credit structure at various levels. The Pilot Project for strengthening the credit delivery system, initially introduced in three districts during 1983-84 had been extended to 12 more districts in 11 States of the country by July, 1986. Another 5 districts are proposed to be covered during 1988-89. Alongside steps have also been taken for rehabilitation for weak Central Cooperative Banks. In the long-term credit sector, 200 primary land development banks had been taken up for rehabilitation by June, 1987. Some additional banks would be covered during 1988-89.

4.168 Steps would be taken to ensure a substantial increase in the flow of institutional credit to small and marginal farmers and other weaker sections of the society, including Scheduled Castes and Scheduled Tribes, tenants, share croppers agricultural labourers, rural artisans and self-employed.

4.169 The co-operatives would be increasingly involved in the distribution of fertilisers during 1988-89, so as to bring about progressive increase in their share in the overall distribution of fertilisers in the country. The number of cooperative retail outlets for distribution of fertilisers had reached 67,000 by 1986-87. Another 5,000 retail outlets are likely to be added during 1987-88 and additional 5,000 retail outlets are proposed to be set up during 1988-89.

4.170 The programme for marketing of agricultural produce through the cooperatives would be considerably accelerated during 1988-89. It is proposed to foster effective links between the marketing cooperatives and the Food Corporation of India, the Cotton Corporation of India and the Jute Corporation of India. The NAFED would be increasingly involved in the marketing support operations of coarse grains, pulses and oilseeds and market intervention operations in respect of potatoes and onions. To facilitate marketing of agricultural produce and distribution of agricultural inputs, it is proposed to take up larger programmes for construction of cooperative godowns and cold storages in 1988-89 under the normal State Plans and International Development Agency (IDA)|European Economic Community (EEC) assisted projects.

4.171 A new scheme for "Integrated Cooperative Development Projects in Selected Districts", had been introduced since 1986-87. Under the scheme, the cooperative infrastructure in the Project areas is to be strengthened to provide a wide range of integrated services for increasing production and productivity, employment and income. These projects would aim at comprehensive development of primary cooperatives for increased disbursement of short-term, medium-term and long-term credit, marketing of agricultural produce and distribution of entire range of agricultural inputs, including fertilisers, improved seeds and pesticides. The projects would cover development of not only agriculture but also allied sectors like horticulture, sericulture, piggery, poultry, fishery, etc., as well as non-farm sectors like handloom and rural industries. The NCDC is reported to have approved schemes for implementation in 32 districts, including 10 districts from the specially under-developed areas like North-East, Himachal Pradesh and Jammu and Kashmir. The work on formulation and implementation of the projects in these and other districts would be taken up during 1988-89.

4.172 The consumer cooperatives in urban areas as well as in rural areas would be suitably strengthened to enable them to play a larger role in the public distribution system.

Agricultural Marketing

4.173 The number of regulated markets in the country as at the end of March, 1987 stood at 5942, which included 2136 primary markets and 3806 submarkets. During the Annual Plan 1987-88, 60 additional markets are likely to be regulated. It is envisaged to bring under regulation additional 125 primary markets and 30 secondary markets during the Annual Plan 1988-89. Besides development of regulated markets, a number of associated programmes like marketing surveys and investigation, strengthening of Ag-mark grading facilities, extension and training were continued during 1987-88. Activities under these programmes would be continued and further expanded during 1988-89.

4.174 With a view to providing scientific storage facilities to agricultural producers in the rural areas, a Centrally sponsored scheme of National Grid of Rural Godowns has been in operation, with Seventh Plan target of 20 lakh tonnes of storage capacity. The target for creation of 3 lakh tonnes of storage capacity contemplated for the Annual Plan 1987-88 is likely to be achieved. A similar target for construction of additional 3 lakh tonnes of storage capacity is envisaged for the Annual Plan 1988-89. Stress would be laid on completion of the rural godowns which have been already sanctioned and the construction work for which has already been started.

Storage & Warehousing

4.175 The Annual Plan 1987-88 had laid down a target for construction of warehousing capacity of 13.5 lakh tonnes through three public sector agencies viz., Food Corporation of India, Central Warehousing Corporation and State Warehousing Corpoartions. Against this, the storage capacity likely to be realised during 1987-88 is only 8.75 lakh tonnes. Whereas the targeted capacity in the case of Food Corporation of India is expected to be achieved in full, the storage capacity likely to be realised in case of Central Warehousing Corporation & State Warehousing Corporations had been much below the Annual Plan expectations. The heavy shortfalls in achievement witnessed in case of CWC and SWCs had been on account of delay in acquisition of land and non-availability| inadequate availability of construction material. The target envisaged for Annual Plan 1988-89 is construction of additional 12.5 lakh tonnes capacity. The agencywise progress in the construction of storage capacity during 1987-88 and the target envisaged for 1988-89 is indicated in the following table :

TABLE 4.11

Targets & Achievements - Additional Stoorage Capcity

(Lakh tones)

Agency	1987-88		1988-89
	Target	Antici-pated achv.	Target
1. Food Corporation of India	4.50	4.50	3.50
2. Central Warehousing Corporation . .	3.00	1.50	3.00
3. State Warehousing Corporations . .	6.00	2.75	6.00
Total: . . .	13.50	8.75	12.50

Food Processing

4.176 The Modern Food Industries (India) Limited (MFIL) took up during 1987-88 a number of food processing projects, which included expansion of Fruit Juice Bottling Plant at Delhi, Pine-apple Juice Concentrate Plant at Silchar and expansion of bakery unit at Delhi. The projects proposed to be taken up by the MFIL during 1988-89 include Poshahar|extruded Food Plant in Udaipur, Rajasthan and Fruit Juice Bottling Plant at Bombay.

4.177 In the field of fruits and vegetable processing, assistance was provided to the Bihar Fruit and Vegetables Development Corporation in setting up an integrated fruit and vegetables complex. It is proposed to extend similar assistance to other States on a selective basis during 1988-89. With a view to enabling the farmers to utilise their horticultural produce and to get fair price for their produce, a number of community canning and preservation centres were established in 1987-88. This scheme would be continued and pursued more vigorously during 1988-89. Besides this, a number of food processing and nutrition centres have been set up in order to promote processing in rural areas of locally available fruits so as to manufacture simple weaning foods. Two such centres Kumarghat and Balussery became operational during 1987-88. A similar centre at Mahendragarh is expected to come into operation during 1988-89. In addition, a new centre is proposed to be set up during 1988-89.

4.178 Rice milling is another important activity being promoted by the Deptt. of Food since 1970. The number of modern rice mills has gone up to 24,500 by the end of 1987 from practically none in 1970. This programme would be continued and further expanded during the Annual Plan 1988-89.

Plan Outlay

4.179 Schemewise details of plan outlay for Agriculture and Allied Activities in the Central Sector are given in Annexure 4.1.

Annexure—4.1

Plan outlay for agriculture and allied activities in the Central Secter

(Rs. crores)

Ministry/Department	1986-87 Actual Expenditure	1987-88 Approved Outlay	1987-88 Revised Estimates	1988-89 Approved Outlay
1	2	3	4	5
Department of Agriculture & Cooperation				
(a) Crop Husbandry				
(i) Agricultural Extension & Training	2.43	5.61	4.09	7.22
(ii) Agricultural Economics & Statistics	7.61	13.15	12.68	11.81
(iii) Seeds Development	5.14	12.89	18.71	10 81
(iv) Fertilisers & Manures	0.85	6.88	2.74	6.38
(v) Plant Protection	5.64	5.22	4.38	4.65
(vi) Agricultural Implements & Machinery	1.77	2.72	1.95	2.85
(vii) Crop Oriented Programmes				
A. National Oilseeds Development Project	14.04	17.50	36.46	17.50
B. Oilseeds Production Thrust Project	..	..	..	35.00
C. National Watershed Development Programme for Rain-fed Agriculture	13.25	28.00	6.35	30.00
D. Reclamation & Management of Alkali Soils	3.96	4.03	2.00	5.50
E. National Pulses Development Programme	1.53	5.50	5.50	6.00
F. Scheme for Small & Marginal Farmers	57.64	66.95	66.95	128.00
G. Special Scheme for Increasing Rice Production in Eastern States	16.77	22.11	20.12	33 85
H. Other schemes	2.21	3.40	3.62	5.04
Total (vii):	**109.40**	**147.49**	**141.00**	**260.89**
(viii) Crop Insurance	73.85	10.00	60.00	0.01
(ix) Horticulture	3.21	7.09	4.73	8 44
(x) Strengthening of Agricultural Programmes	..	..	..	70.00
(xi) Scarcity Relief	Neg.	..	..	0.01
Total (Crop Husbandry)	**209.90**	**211.05**	**250.28**	**383 07**
(b) Soil & Water Conservation				
(i) Soil Conservation in the Catchments of River Valley Projects	21.99	21.44	21.44	22.4
(ii) Integrated Watershed Management in Catchment of Flood Prone rivers	11.46	11.28	11.28	11.50
(iii) Other Programmes	1.72	3.28	2.93	4.04
Total*:	**35.17**	**56.00**	**35.65**	**38.00**

(Rs. Crores)

1	2	3	4	5
(c) Animal Husbandry				
(i) Special Livestock Production Programme	5.00	10.00	8.00	9.00
(ii) Other Programmes	8.75	14.69	10.80	18.00
Total@	**13.75**	**24.69**	**18.80**	**27.00**
(d) Dairy Development				
(i) Operation Flood	58.22	60.43	75.00	55.40
(ii) Other Programmes	0.97	4.88	3.93	2.77
Total@	**59.19**	**65.31**	**78.93**	**58.17**
(e) Fisheries				
(i) Fisheries Schemes	17.94	28.20	21.62	30.00
(ii) Trawler Development Fund	39.41	11.80	24.50	23.00
Total	**57.35**	**40.00**	**46.12**	**53.00**
(f) Cooperation				
(i) Investment in Debentures of Land Development Banks	23.84	25.00	25.00	25.00
(ii) Credit Cooperatives in Under-developed States	4.74	3.50	3.50	4.00
(iii) Cooperative Storage & Processing Programmes with International aid	39.59	46.05	62.66	65.24
(iv) Assistance for Cooperative Marketing & Processing Storage Programmes in underdeveloped States/UTs	7.00	5.50	5.00	7.00
(v) Other Schemes	11.91	10.95	9.01	13.02
Total	**87.08**	**91.00**	**105.17**	**114.26**
Total : (Deptt. of Agriculture & Coopn.)*	462.44£	468.05	534.95	673.50
Department of Agricultural Research & Education				
(a) Agricultural Research & Education				
(i) Institutes & National Research Centres	24.56	26.60	26.18	33.29
(ii) Coordinated Projects Incl. Project Directorates	19.94	19.75	23.14	21.97
(iii) World Bank & Other Externally aided Projects	12.33	15.85	12.73	14.57
(iv) Agricultural Education	13.06	13.26	13.15	10.00 9.00**
(v) Transfer of Technology & Other Programme	7.29	6.54	6.80	7.17
Total	**77.18**	**82.00**	**83.00**	**96.00**
**For implementing UGC Scales in State Agricultural Universities.				
epartment of Rural Development:				
(a) Food, Storage & Warehousing	3.66	3.50	3.50	3.50
(b) Other Agricultural Programmes	11.89	6.70	6.18	6.50
Total	**15.55**	**10.20**	**9.68**	**10.00**

@Inclusive of works outlay provided in the Demands of the Ministry of Urban Development.

*Excludes outlays/expenditure for two schemes shown under State Plan, details of which are as follows:

(i) Pilot Project for Control of Shifting Cultivation:	0.25	15.00	7.50	15.00
(ii) Reclamation and Stabilisation of Ravinous Areas:	—	12.00	6.00	14.50
Total:	**0.25**	**27.00**	**13.50**	**29.50**

£Excludes Rs. 57 crores shown as assistance for drought relief works under State Plans.

Annexure 4.1 (Contd)

(Rs. Crores)

1	2	3	4	5
Department of Commerce				
(a) Plantations	31.97	31.52	33.00	32.48
(b) Crop Husbandry	4.10	4.50	3.10	4.15
Total	**36.07**	**36.02**	**36.10**	**36.63**
Department of Economic Affairs				
Payment to Agricultural Financial Institutions:				
(a) National Bank for Agricultural & Rural Development (NABARD)	135.12	150.00	342.39	105.00
(b) Regional Rural Banks	5.00	5.00	5.00	5.00
Total	**140.12**	**155.00**	**347.39**	**110.00**
Department of Food:				
(a) Food, Storage & Warehousing				
(i) Food Corporation of India	68.00	46.00	40.00	27.75
(ii) Central Warehousing Corporation		20.00	21.50	24.00
(iii) Other Programmes	1.70	2.06	1.79	5.32
Total	**69 70**	**68.06**	**63.29**	**57.07**
Department of Civil Supplies				
Food, Storage & Warehousing:	—	0.60	0.40	0.10
Grand Total	**801.06**	**819.93**	**1073.81**	**983.30**

Main Findings of Mid-term Appraisal

(i) A target of not less than 173—175 million tonnes of foodgrain production should be achieved by the end of Seventh Plan;

(ii) The main areas needing attention to regain the momentum of agricultural growth and to mitigate vulnerability to climatic factors include:-

- (a) rise in the growth rate of productivity raising inputs;
- (b) modernisation of irrigation system and improved water management; and
- (c) acceleration and resilience of growth in rainfed/dryland agriculture and in crops like paddy, oilseeds and pulses.

(iii) The gap between irrigation potential and utilisation has been widening. If the Seventh Plan target is to be achieved, irrigation development is to aim at an average of annual increase of 2.44 million ha during the remaining years of the Seventh Plan. Greater attention needs to be paid for promoting water use efficiency for optimising productivity;

(iv) Considering the slow pace in recent years, the consumption of chemical fertilisers by 1989-90 may be in the range of 12.0—12.2 million tonnes. This would require a high growth rate of 8.77 per cent per annum from 1986-87 to 1989-90. The target would be achieved by adopting the following measures such as:-

- (a) promotion measures in the low consumption/dryland areas
- (b) involvement of the fertiliser industry in promotion efforts and supply of fertilisers in smaller packs; and
- (c) strengthening the institutional agencies for distribution particularly in backward, interior and inaccessible areas.

(v) Pesticide support to Indian agriculture requires more fine tuning for increasing effectiveness. This would need:

- (a) Improved demand forecasting-
- (b) Evolution of improved standards!;
- (c) Use of bio-technology methods;
- (d) Development of a cost effective and technologically dynamic pesticide industry and distribution network; and
- (e) Development of an integrated pesticide management network.

(vi) Concrete measures need to be taken to resolve the main constraint which is the inadequacy of breeder seeds production.

(vii) As regards soil and water conservation, the pace of physical progress seems to be slowing down which is mainly because of inadequate provision of funds and cost escalation. The progress of the soil conservation works under theee programmes like RLEGP, NREP, DPAP needs to monitorod and reviewed and efforts made to involve voluntary agencies on a large scale.

(viii) The progress in the disbursement of short-term, medium-term and long-term cooperative credit has been much below the Plan expectation. One of the main reason for this shortfall in the achievement of the targets of co-operative credit has been the occurence of floods and drought. Besides, major bottlenecks in the expansion of development of bank credit to the agriculture sector is attributed to high level of overdues ranging between 40 to 45%.

(ix) The pace of implementation of expansion projects has not been uniform in all the States.

The mid-term appraisal emphasises the need for taking the following measures for achieving the target of 175 million tonnes of foodgrains production by 1989-90 :

- (a) Special attention to be paid to the neglected aspects of SRPP such as drainage improvement, seed supply:
- (b) In wheat economy, attention to be paid to significantly improved yields through genetic breakthrough and extension effectiveness ;
- (c) Priority to be given to the Technology Mission on Oilseeds ;
- (d) Optimum cropping pattern to be evolved for rainfed and dryland areas/different agro-climatic regions.
- (e) Extension of Marketing infrastructure and price support operations to dryland crops like pulses and oilseeds.
- (f) Attention towards improved water management in the input supply programmes.

CHAPTER 5

RURAL DEVELOPMENT

Alleviation of poverty is the Central concern of planning in India and the Seventh Plan stipulates the goal of bringing down the percentage of population below the poverty line to less than 10 per cent by 1994-95. With this aim in view, greater emphasis has been laid on increased agricultural production, expansion of irrigation facilities, increase in cropping intensity, augmenting the potential of dry land agriculture, adoption of special measures to increase productivity and incomes of small and marginal farmers, and development of village and small industries. These measures will make a significant contribution to the reduction of poverty. However, the plan also includes several beneficiary-oriented and area specific poverty alleviation programmes.

5.2 The major poverty alleviation programmes being implemented in the Seventh Plan are the Integrated Rural Development Programme (IRDP), National Rural Employment Programme (NREP) and Rural Landless Employment Guarantee Programme, (RLEGP). The outlays for these and other programmes of Rural Development for 1988-89, both for the Centre and the States|UTs are shown in Annexure 5.1. Details of the Central outlay for the Seventh Plan, expenditure during the first three years and the provision for 1988-89 are given in Annexure 5.2. The progress made during 1987-88 and the targets fixed for 1988-89 are elaborated in the following paragraphs.

Integrated Rural Development Programme (IRDP)

5.3 The objective of the programme is to assist the families living below the poverty line in taking up self-employment ventures. The programme aims to achieve the stated objective by providing income generating assets including working capital through package of assistance comprising subsidy and institutional credit. The plan outlay for the programme is being provided on 50 : 50 sharing basis by the Centre and the States.

5.4 During 1987-88, an outlay of Rs. 613.38 crores was provided for the main programme, against which the reported utilisation is Rs. 720.36 crores. In addition, an amount of Rs. 1159.97 crores was disbursed by way of term credit Against the target of 3.96 million families to be covered during 1987-88, the actual coverage is stated to be 4.22 million families. The percentage coverage of SC|ST families was 44.4 per cent and that of women beneficiaries 19.6 per cent. Table 5.1 gives the details of physical achievements under IRDP during 1987-88.

TABLE 5.1

IRDP — PHYSICAL ACHIEVEMENTS

Sl. No.	Items	Unit	1987-88 (Provisional)	
1.	Total families assisted	(Million)	4.23	
2.	SC and ST beneficiaries assisted	(Million)	1.88	
3.	Women assisted	(million)	0.83	
			New	old
4.	Per capita subsidy	(Rupees)	1522	1266
5.	Per capita credit	(Rupees)	2942	2509
6.	Per capita investment	(Rupees)	4464	3775
7.	Percentage of families assisted in			
	(i) Primary Sector		41	
	(ii) Secondary Sector		18	
	(iii) Tertiary		41	

5.5 The outlay for the main programme for 1988-89 is Rs. 687.95 crores and the target is to cover 3.2 million families. State-wise financial and physical position is indicated in Annexures 5.3 and 5.4.

5.6 With a view to monitoring the implementation of the programme, a monthly concurrent evaluation of IRDP is being carried out through 29 research institutions in 72 blocks of 36 districts, covering 10 old and 10 new beneficiaries in each block on a random sample basis. The findings of the evaluation for the period January 1987----September 1987 are that 47 per cent of the assisted families belonged to the destitute group (Rs. 0-2265) and 50 per cent to the very very poor group (Rs. 2266----3500). At the national level, 13 per cent old beneficiaries had crossed the revised poverty line of Rs. 6400 and 61 per cent beneficiaries had crossed the income level of Rs. 3500. In 71 per cent cases, the assets were found to be intact. The assets had generated incremental income of more than Rs. 2000 in 27 per cent cases. The incremental income was between Rs. 1000 and Rs. 2000 in 24 per cent cases and between Rs. 501 and Rs. 1000 in 17 per cent cases. Forty three per cent of the sample beneficiaries had no overdues and about 31 per cent had overdues less than Rs. 1000. Summary of the findings of the concurrent evaluation of IRDP from January, 1987 to September, 1987 are given in Annexure 5.5.

5.7 For improving the implementation of the programme, a number of steps have been taken. These include diversification of activities to include new and innovative programmes like fruit and food processing units, fish farming and encouraging supplies of items in demand from public sector. Efforts have been made to integrate the beneficiaries under this programme with other sectoral programmes, like; Operation Flood. Sericulture, Small Industries, Horticulculture etc. The limit for security free loans has been raised from Rs. 5000 to Rs. 10000 for agriculture and allied activities. For improving the credit disbursement in the North Eastern Region it has been decided to permit the District Rural Development Agencies (DRDAs) to perform loaning and recovery functions on behalf of banks in the unbanked blocks.

5.8 For 1988-89, the criteria for allocation of funds to the States has been changed so as to link it further with the incidence of poverty. Seventy-five per cent funds have been allocated on incidence of poverty and 25 per cent on uniform allocation per block.

Training of Rural Youth for Self-Employment (TRYSEM)

5.9 The scheme of Training of Rural Youth for Self-employment has been continuing since 1979 with the objective of equipping rural youth in the age group of 18—35 years with necessary skills and technology to take up self-employment in the fields of agriculture, industry, service and business. During 1985-86, 1986-87 and 1987-88, 1.78 lakh, 1.85 lakh and 1.95 lakh youth respectively were trained under the scheme. Of these, 56 per cent, 57.6 per cent and 61.5 per cent respectively were employed. In 1987-88, 50.3 per cent of the youth trained were self-employed and 11.2 per cent were engaged in wage employment. Of the total number of youths trained 0.82 lakh (42 per cent) belonged to Scheduled Castes and Scheduled Tributes. The number of women trained was 0.89 lakh (45.6 per cent) The performance under TRYSEM during 1985-86, 1986-87 and 1987-88 is indicated in Annexure 5.6.

5.10 During 1987-88, the norms for stipends to the beneficiaries and the expenditure on recurring assistance to training institutions have been liberalised. More rapport is being established between DRDAs and employment exchahnges for identifying employment opportunities and exploring the possibility of setting up groups for manufacture|assembly of non traditional items for which there is good demand in the market.

5.11 An outlay of Rs. 6.60 crores has been provided in the central sector for the scheme of strengthening of TRYSEM infrastructure for 1988-89. Statewise details are given in Annexure 5.7.

Development of Women and Children in Rural Areas (DWCRA)

5.12 The aim of this scheme is to organise women in socio-economic activity groups with the dual objective of providing self-employment opportunities and social strength to them. DWCRA is being progressively extended to more districts. A decision was taken to cover 25 additional district every year during the Seventh Plan period. In pursuance of this, 24 districts were added during 1986-87 and 26 more districts during 1987-88. Total number of districts covered under DWCRA as on 31-3-1988 was 106. It is proposed to cover 25 more districts during 1988-89. During 1987-88, an outlay of Rs. 10.08 crores was provided and the target was to organise 7500 groups. Against this, 4462 groups had been formed. To supplement the efforts of Government in reaching out to the rural women and for getting a wider coverage for the programme, funds are also made available to voluntary agencies who take up projects in conformity with DWCRA guidelines. These funds are channelised through the Council for Advancement of People's Action and Rural Technology (CAPART). Out of the total outlay for the programme during the year, a provision of Rs. 1 crore was made in the budget to be placed at the disposal of the CAPART.

5.13 An outlay of Rs. 11.41 crores, inclusive of UNICEF share, has been provided for DWCRA in the Central sector for 1988-89 and the target is to organise 7500 additional groups, of which 5000 groups will be allocated to the existing districts and 2500 groups to the proposed 25 new districts.

National Rural Employment Programme (NREP)

5.14 The National Rural Employment Programme envisages creation of additional wage employment opportunities for unemployed and underemployed persons in the rural areas, while simultaneously creating productive community assets for strengthening rural economic and social infrastructure and improving the overall quality of life in the rural areas. The cash expenditure under the programme is shared between the centre and the States on 50 : 50 basis. The Central Government also provides foodgrains as an additive.

5.15 For 1987-88, a sum of Rs. 671.92 crores was initially provided, inclusive of the State's share and the subsidised value of foodgrains supplied to the States by the Centre. This was subsequently revised to Rs. 924.97 crores. As against this, the total utilisation was Rs. 785.22 crores. However the outlays and utilisation do not include the subsidy components of foodgrains and transportation. During the year the Centre released 11.99 lakh tonnes of foodgrains, of which 11.11 lakh tonnes were utilised. The target for employment generation was 363.56 million mandays, against which the achievement was 369.73 million mandays. Out of the total employment generated 36 per cent was for Scheduled Caste, 18 per cent for Scheduled Tribe, 38 per cent for landless and 16 per cent for women.

5.16 Table 5.2 below indicates the physical achievements under the programme :

TABLE 5.2

NREP—Physical Achievements

Sl. No.	Item	Unit	1987-88 (Provisional)
1.	Physical assets created:		
	(a) Area covered under Social Forestry	(ha)	140388.03
	(b) Trees planted	(lakh Nos)	3747.73
	(c) Works benefitting SCs/STs	(Nos)	117510
	(d) Construction of village tanks	(Nos)	5585
	(e) Area covered by minor irrigation	(ha)	42962.28
	(f) Area coverd by soil conservation	(ha)	6652.86
	(g) Drinking Water Wells	(Nos)	27292
	(h) Rural roads	(Kms.)	37201.33
	(i) Schools, Balwadis and Panchayat ghars		21741
	(j) Other works	(Nos.)	129387
2.	Employment Generated :		
	SCs	Million mandays	129.67
	STs	-do-	70.97
	Others	-do-	169.09
	Total	-do-	369.73
	Of which		
	Landless laboureres	-do-	140.18
	Women	-do-	63.97
3.	Unit cost of employment	(Rupees)	21.31
4.	Wage/non-wage ratio		58.42
5.	Per capita utilisation of foodgrains	(Kgs.)	3.00

5.17 During 1988-89, a total allocation of Rs. 899.54 crores has been made to the States|UTs for the programme which includes Rs. 87.64 crores to meet the cost of 53.6 lakh tonnes of foodgrains. The target is to generate 357 million mandays of employment during the year Statewise outlays|expenditure and targets|achievement under NREP are given in Annexure 5.8 and 5.9 respectively. The Statewise releases and utilisation of foodgrains are shown in Annexure 5.10.

Rural Landless Employment Guarantee Programme (RLEGP)

5.18 The objective of the programme is to improve and expand employment opportunities for the rural landless and provide guaranteed employment to at least one member of every rural landless household upto 100 days in a year, while at the same time, creating durable assets for strengthening the rural infrastructure so as to meet the growing requirements of the rural economy. The programme is fully funded by the centre.

5.19 For 1987-88 a sum of Rs. 725.00 crores had been provided for the programme. The State-wise expenditure is stated to have been Rs. 639.36 crores excluding the cost of subsidies for foodgrains and transportation. The Centre released 1.04 million tonnes of foodgrains to the States and UTs against which the utilisation is reported at 8.07 lakh tonnes. The target for employment generation was 268.41 million mandays and the achievement was 301.86 million mandays. The share of SC, ST and women workers in the employment generation has been 40 per cent, 18 per cent, and 20 per cent, respectively during the year. 46.6 per cent of the employment generation was for the landless workers.

5.20 Table 5.3 below indicates the physical achievements under the programme :

TABLE 5.3

RLEGP — Physical Achievements

Sl. No.	Items	Unit	1987-88 (Provisional)
1.	Assets created :		
	(a) Area covered under social forestry	(ha)	178918
	(b) Trees planted	(lakhs)	1058
	(c) Indira Awas Yojana	(Nos.)	104811
	(d) Rural Sanitary Latrines	(Nos)	47791
	(e) Rural Roads	(Kms)	6625
	(f) School Buildings	(Nos.)	2717
	(g) Minor Irrigation	(ha)	16576
	(h) Soil Conservation	(ha)	17923
2.	Employent generated :		
	SCs	(million mandays)	119.78
	STs	-do-	55.19
	Others	-do-	126.89
	Total	-do-	301.86
	Of which		
	Landless	-do-	140.71
	Women	-do-	60.85
3.	Wage/non-wage ratio		2.68
4.	Per Capital Utilisation of food grains	(Kgs.)	2.68

5.20 For 1988-89 a sum of Rs. 730 crores has been provided. The target is to generate 271.65 million mandays of employment during the year. Statewise outlays and targets for employment generation are given in Annexures 5.11 and 5.12. The releases and utilisation of foodgrains during 1985-86, 1986-87 and 1987-88 are indicated in Annexure 5.13.

5.21 During 1987-88 in view of the prevailing drought situation guidelines were issued to the States to take up only those works under NREP and RLEGP which are in general conformity with the objectives of drought proofing and lead to creation of economically productive assets. For 1988-89 a scheme for construction of dugwell has been taken up as a sub-scheme under the two programmes so as to provide an irrigation source for Scheduled Castes|Scheduled Tribes, small and marginal farmers. It is also proposed to renovate the minors and distributaries of the canal irrigation systems which have gone into disuse so as to make them functional.

Land Reforms

5.22 Land Reforms measures are being pursued with a view to restructuring the agrarian society, and establishing an egalitarian social order by abolition of intermediary tenures, providing security to tenants with the ultimate objective of conferment of ownership rights, imposing land ceiling and distributing ceiling surplus land. The measures also include preparation and maintenance of land records and consolidation of agricultural holdings. Redistributive land reform measures are being integrated with poverty alleviation programmes to enable rural poor to take up land based income generating activities and to increase productivity of lands cultivated by him.

5.23 As a result of implementation of ceiling laws, 44.44 lakh acres of land has been distributed among 41.20 lakh beneficiaries of which 14.43 lakhs are Scheduled Castes and 5.69 lakhs are Scheduled Tribes. A centrally sponsored scheme for providing financial assistance to the assignees of ceiling surplus land at the rate of Rs. 2500 per hectare for the purposes like land development, provision of inputs as well as immediate consumption needs of beneficiaries is being implemented on 50 : 50 sharing basis between the Centre and the States since 1975-76. During 1985-86 and 1986-87, the expenditure under the scheme in the Central sector was Rs. 2.95 crores and Rs. 4.12 crores respectively. In 1987-88 as against a provision of Rs. 3.00 crores the anticipated expenditure was Rs. 3.30 crores. During 1988-89, a sum of Rs. 4.5 crores has been provided for the scheme.

5.24 A new centrally sponsored scheme of strengthening of revenue administration and updating of land records has been approved for implementation. A provision of Rs. 2.65 crores was made for the scheme for 1987-88. For 1988-89, a provision of Rs. 5,00 crores has been made. Strengthening of survey and settlement staff, pre-service and in-service training of revenue and survey staff, modernisation of equipment, strengthening of revenue machinery at village and immediate supervisory levels is being taken up under the scheme. Computerisation of land records on a pilot project basis and taking up certain identified districts for intensive implementation of land reforms measures in the States of Bihar and Orissa will also be attempted under the scheme.

5.25 A One Man Committee headed by Prof. D. C. Wadhwa of Gokhale Institute of Politics and Economics, Pune has been set up by the Planning Commission to report on the status of record of rights in land.

Drought Prone Area Programme (DPAP)

5.26 The Drought Prone Area Programme (DPAP) aims at integrated area development on a water shed basis for optimum utilisation of land, water, livestock and human resources and for restoration of ecological balance to mitigate the effects of drought. Under the programme, activities such as afforestation, soil conservation, efficient utilisation of scarce water through surface and ground water exploitation, conservation of scanty rainfall, introduction of dry land farming technology and suitable agronomic practices are taken up. The allocations under the programme are shared by the Centre and the concerned States on 50 : 50 basis. Upto 1987-88, allocation for the programme were made at a uniform rate which was Rs. 12.00 lakhs per block in 1985-86 and Rs. 15.00 lakhs per block during 1986-87 and 1987-88.

5.27 During 1987-88 out of total allocations of Rs. 92.62 crores the Central share was Rs. 46.50 crores against which an amount of Rs. 36.50 crores was released. The total expenditure reported by the State Governments was Rs. 89.19 crores. Physical achievements under this programme during 1987-88 are shown in the table 5.4 below.

TABLE 5.4

DPAP —Physical Achievements

Sl. No.	Item	Unit (anticipated	1987-88 achievements)
1.	Area treated under soil and mosture conservation	'000 hects.	63.46
2.	Irrigation potential created	'000 hects.	22.26
3.	Area under forestry and pasture	'000 hects.	70.37
4.	Employment generated	lakhs mandays (till Dec. 1987)	71.12

Statewise details of financial allocation and utilisation as well as physical achievements are respectively given in Annexures 5.14 and 5.15.

5.28 A sum of Rs. 51.26 crores has been provided as the Central share for the programme in 1988-89. Allocation has been linked to the geographical area of the blocks. The revised norm being Rs. 15 lakhs for blocks having area upto 500 sq. kms., Rs. 16.5 lakhs for blocks having area between 500 sq. kms. to 1000 sq. kms. and Rs. 18.5 lakhs for blocks having area more than 1000 kms. The range of activities under the programme has now been narrowed down so as to sharpen focus on the objectives to be achieved. Sventyfive per cent of the annual allocations have been earmarked for activities which are core to drought proofing such as soil and moisture conservation to be implemented through integrated watershed based plans.

Panchayati Raj Institutions

5.29 Panchayati Raj Institutions are in existence in almost all the States and Union Territories with variations in the structural pattern. Majority of the States|UTs have a three tier system, while some States have one or two tier systems. The tenure of Panchayati Raj Institutions ranges between 3 and 5 years. The States|UTs have been advised to hold regular and timely elections to the Panchayati Raj Institutions. The State Governments have also been asked to improve the resource base of these institutions and involve them in the implementation of rural development programmes so as to make them effective instruments of popular participation.

Strengthening of Development Administration

5.30 A high level Committee headed by Dr. G. V. K. Rao had been set up to review the administrative arrangements for rural development and poverty alleviation programmes with a view to developing appropriate structural mechanism to ensure that they were planned and implemented in an effective and integrated manner. This Committee submitted its report in January, 1986 The report has since been examined and the views of the State Governments have been obtained. The views of the State Governments have been considered and the matter is being processed for placing before the National Development Council.

Training Programme

5.31 A number of training schemes have been taken up during the Seventh Plan for improving the skill of the functionaries in the field. The expenditure for various training schemes during 1985-86, 1986-87 and 1987-88, and outlay for 1988-89 are indicated in the following Table 5.5.

TABLE 5.5

Training Scheme— Financial Outlay/Expenditure

(Rs. Crores)

Sl. No. Items	1985-86 (Actuals)	1986-87 (Actuals)	1987-88 Anticipated Expdn.	1988-89 Approued Outlay
1. National Institute for Rural Development (NIRD)	0.76	0.90	1.27	1.30
2. Establishment/Strengthening of State Centres for Training and Research .	2.27	1.19	2.00	2.00
3. Organistion of Training centres, Seminars and Workshops . . .	0.12	0.16	0.10	0.30
4. Strengthening of Extension Training Centres	0.10	0.91	1.00	1.00
5. Composite Rural Training and Technology Centres (CRTTC) . . .	NIL.	NIL	NIL	2.50

Greater emphasis is being laid on training of trainers so as to make all training programmes relevant to the changing situation. A project has also been launched to train 500 BDOs in the North Eastern States and Rajasthan through distance education system of Indira Gandhi Open University. Seven State level training institutions out of 22 sanctioned are completed and fifteen are at various stages of completion.

Monitoring

5.32 A comprehensive system of monitoring various programmes has been developed. The State Governmets are reporting progress of implementation of various programmes regularly and highlighting the problems faced by them. Corrective measures are taken to overcome the problems. In order to improve the monitoring of the programmes, the State Governments have been advised to install computers in all DRDAs, based on the experience of the pilot programme under CRISP (Computerised Rural Information System Project). The software developed for CRISP will be used for the purpose. The new system of computerised monitoring will start operating from 1988-89.

5.33 Concurrent evaluation study of the IRDP is being undertaken with the help of 29 research institutions. The aim is to ascertain the areas of concern and improve implementation of the programme. Concurrent evaluation of NREP has also been initiated. Similar studies in respect of RLEGP, DPAP, DDP and other RD programmes are also proposed to be taken up.

Council for Advancement of People's Action and Rural Technology (CAPART)

5.34 CAPART is a synthesis of the People's Action for Development India (PADI) and the Council for Advancement of Rural Technology (CART). These two institutions were merged into one in September 1986 keeping in view their complementary role and also because both the societies operated through voluntary organisations. Part of the outlay for various anti-poverty programmes like IRDP, RLEGP and Accelerated Rural Water Supply is being channelised through CAPART to the voluntary agencies. During the year till December, 1987 CAPART had approved 375 projects with a total cost of Rs. 6.62 crores. It has been decided that CAPART should act as a consultancy body to the various Ministries|Departments of the Government of India in regard to the work relating to voluntary agencies in the field of Rural Development. CAPART has also been given the role of coordinator for promotion of rural technology. During 1987-88, an amount of Rs. 1.81 crores had been assigned for disbursement as grant to encourage research and development of new technology which was fully disbursed. For 1988-89, an outlay of Rs. 4.00 crores has been provided for the CAPART.

Organisation of Beneficiaries

5.35 In order to empower the rural poor and conscientise them about rights and power of collective action, the scheme of "Organisation of Beneficiaries of Anti-Poverty Programme" is being implemented. The Seventh Plan allocation for the scheme is Rs, 5 crores. In 1987-88, an outlay of Rs. 1.00 crore was provided which is likely to be fully utilised. Outlay in 1988-89 for the programme has been provided at Rs. 1.00 crore.

5.36 The States and UTs have been asked to identify one department as a nodal department for giving proper direction to the strategy for promoting voluntary action in rural development. They have been also advised to identify suitable schemes for implementation through voluntary organisations and earmark upto 10 per cent of the funds for this purpose.

Annexure 5.1

Plan Outlay for Rural Development Programme —1988-89

(Rs. crores)

Name of the Scheme	Centre	States	YUTs	Total
Integrated Rural Development programme and allied programmes				
Integrated Rural Development Programme*	355.00	359.35	—	—
Training of Rural Youths for self-employment (TRYSEM)	6.60			
Development of Women and Children in Rural Areas (DWCRA)	11.41			
Roads in Tribal Areas	3.00			
Council for Advancement of peoples Action Programme and Rural Technology (CAPART)	4.00			
National Institute of Rural Development	1.30			
Others	8.35			749,01
	389.66			
Drought Prone Area Programme (DPAP)	51.26	50.15	..	101.41
Desert Development Programme (DDP)	50.00	—	—	50.00
National Rural Employment programme (NREP)	529.43	279.53	..	808.96
Rural Landless Employment Guarantee Programme (RLEGP)	730.00	..	..	730.00
Integrated Rural Energy Programme (IREP)	1.70	8.64	1.18	11.52
Community Development & Panchayats	—	127.76	1.87	129.63
Land Reforms	9.65	80.28	0.28	90.21
Special Employment Programmes	..	178.06**	—	178.06
Grand Total	1761.70	1083.77	3.33	2848.80

*Includes provisions for strengthening of block level admn. monitoring cell. etc.

*includes Rs. 1.50 crores for cyclone shelters in Andhra Pradesh. Rs. 2 crores for Economic assistance to Displaced persons of 1947 in J&K, Rs. 2 crores, for Antyodaya in case of Karnataka, and Rs. 0.10 crores for pilot projects for village development in Meghalaya.

**Includes outlays for economic rehabilitation of rural poor in Orissa, employment guarantee scheme in Karnataka, Maharashtra and other Rural employment programmes in Gujarat and Tripura.

Annexure 5.2

Special Programme for Rural Development 7th Plan Outlay 1986-87 (Actuals), 1987-88 Anticipated Expenditure and 1988-89 outlay

(Rs. Crores)

Name of the Scheme	7th Plan Outlay	1986-87 Actuals	1987-88 Outlay	1987-88 Anti. Exp. (Prov.)	1988-89 Outlay
1	2	3	4	5	6
I. IRDP Allied Programmes					
1. IRDP	1186.79	288.35	320.25	307.25	355.00
2. TRYSEM	Not Fixed	4.93	5.50	5.50	6.60
3. DPAP	237.00	45.78	46.50	36.50	51.26
4. DDP	245.00	38.50	39.00	33.55	50.00
II. Rural Employment					
5. RLEGP	1743.78	733.22	725.00	682.05	730.0
6. NREP	1250.81	481.05	480.00	652.85	529.43
I. Land Reforms					
7. Grants to Institutions	0.30	0.12	0.10	0.25	0.15
8. Assistance to Assignees of ceiling surplus land	15.60	4.12	3.00	3.30	4.50
9. Updating of land records and strengthening of Revenue Machinery	20.81	..	2.65	..	5.00
IV. Other RD Programmes					
10. DWCRA	20.30	7.86	10.08	10.08	11.41
11. Rural roads in tribal areas	..	3.44	4.00	3.00	3.00
12. Training					
(i) CAPART	20.00	2.85	2.00	1.81	4.00
(ii) NIRD	6.50	0.90	1.30	1.27	1.30
(iii) Estb./Streng. of State/Regional Trg. Centres	10.00	1.19	2.00	2.00	2.00
(iv) Orgn. of Trg. Courses, Seminars & Workshops.	1.50	0.16	0.30	0.10	0.30
(v) Streng. of ETC.	10.00	0.91	1.00	1.00	1.00
(vi) CRTTC	20.00	..	2.50	..	2.50
(vii) Orgn. of Beneficiaries	5.00	1.45	1.00	1.00	1.00
(viii) Promotion of Voluntary Schemes & social action progrs.	8.00	1.83	1.37	1.37	1.00
(ix) Communication Cell	2.00	0.09	0.25	0.23	0.25
(x) Streng. of Dev. Admn.	10.00	..	1.00	..	..
(xi) CDRIS	5.00	..	1.00	..	..
V. Other Programmes					
13. Afro-Asian Rural Reconstruction Organisation (AARRO)	0.50	..	..	..	0.30
14. Integrated Rural Energy Prog.	5.91	1.00	1.15	1.00	1.70
15. Special Livestock Breedng Programme*	76.79	..	..	..	..
Grand Total	4901.59	1617.75	1650.95	1744.11*	1761.70

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*Scheme transferred to Agr. Deptt. Hence annual outlay s not provded here.

aNot included in grand total.

aExcludes Rs. 0.03 crore for Public Works.

Annexure 5.3

IRDP—Statewise Plan Outlays & Expenditure

(Rs. in lakh)

Sl. No.	Name of the States/UTs	1985-86 Actual Expnd.	1986-87 Actual Expdn.	1987-88		1988-89 Total Outlay
				Plan outlay (Total)	Anticipated Expdn. (Prov.)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Andhra Pradesh	3109.28	4747.60	4347.72	5456.60	4922.08
2.	Arunachal Pradesh	195.41	295.95	384.00	452.26	427.20
3.	Assam	1244.01	1901.34	1365.17	1600.50	1493.76
4.	Bihar	4954.45	7683.99	8410.68	10277.88	9609.33
5.	Goa	86.61*	120.35*	80.00	147.64	89.00
6.	Gujarat	1511.05	2324.35	2123.03	2490.06	2306.64
7.	Haryana	804.53	893.43	673.45	1013.74	691.07
8.	Himachal Pradesh	552.02	682.81	385.76	763.52	369.06
9.	J & K.	599.80	558.95	606.14	953.05	572.09
10.	Karnataka	2043.07	2424.80	2593.47	2972.49	2973.30
11.	Kerala	982.65	2382.07	1635.49	1743.56	1805.79
12.	Madhya Pradesh	3688.51	5515.73	5851.95	9329.60	6599.79
13.	Maharashtra	3336.09	4192.98	4424.25	4855.94	5076.54
14.	Manipur	135.21	284.51	129.14	193.30	118.61
15.	Meghalaya	177.94	435.08	192.96	250.51	192.30
16.	Mizoram	127.05	300.79	160.00	276.23	178.00
17.	Nagaland	203.30	145.20	168.00	365.47	186.90
18.	Orissa	2245.60	2819.17	3244.50	4173.90	3557.74
19.	Punjab	872.18	1410.48	728.95	1049.27	718.50
20.	Rajasthan	1934.79	2435.50	2879.05	3843.84	3229.64
21.	Sikkim	27.38	33.39	32.00	54.95	35.60
22.	Tamil Nadu	2985.89	4322.20	4234.50	5344.68	4697.52
23	Tripura	236.87	372.11	153.11	604.12	164.18
24	Uttar Pradesh	7814.29	11138.60	11651.58	16173.57	13186.37
25.	West Bengal	4107.11	3679.49	4725.10	5199.57	5389.59
	Total States	**43980.09**	**71100.87**	**61180.00**	**71806.75**	**68590.60**
26.	A & N Island	12.70	49.91	40.00	50.83	44.50
27.	Chandigarh	N.A.	1.85	0.75	N.A.	8.90
28.	Dadra & N. Haveli	7.16	19.19	8.00	13.90	8.90
29.	Delhi	39.38	86.19	40.00	71.02	44.50
30.	Daman & Diu	..	..	16.00	8.00	17.80
31.	Lakshadweep	33.13	9.27	21.25	15.97	44.50
32.	Ponaicherry	37.92	70.65	32.00	69.24	35.60
	Total—U.Ts.	**130.29**	**237.06**	**158.00**	**228.96**	**204.70**
	Total—States and U. Ts	**44110.38**	**61337.93**	**61338.00**	**72035.71**	**68795.30**

*Including Daman & Diu

Annexure 5.4

IRDP—Statewise target's and achievements—Beneficiaries assisted (No. of families)

Sl. No.	Name of the States/UTs	1985-86 Achievement	1986-87 Achievement	1987-88		1988-89 Target
				Target	Achievement (Provisional)	
1		3	4	5	6	7
1.	Andhra Pradesh	180115	256944	289909	263559	234905
2.	Arunachal Pradesh	11358	13702	18860	11683	18554
3.	Assam	51843	68019	81256	46385	69690
4.	Bihar	421135	535155	536427	657334	430492
5.	Goa	7052*	9050*	5210	5350	4282
6.	Gujarat	101275	147527	150281@	154124	114472
7.	Haryana	48496	50420	61438@	53197	45802
8.	Himachal Pradesh	33574	36955	27930	32481	21174
9.	J & K	41329	26718	37745	29083	28030
10.	Karnataka	148794	145275	161239	160135	137794
11.	Kerala	71376	143399	115419	110684	84054
12.	Madhya Pradesh	249591	363582	384078	404358	300717
13.	Maharashtra	190174	238118	276970	292603	226410
14.	Manipur	7487	13673	7741	6556	5630
15.	Meghalaya	7129	11970	9718	3606	8547
16.	Mizoram	2623	8438	7368	4495	7160
17.	Nagaland	7425	4318	15120@	3724	9073
18.	Orissa	173427	207872	208680	304732	169845
19.	Punjab	64612	99935	55158	74367	40133
20.	Rajasthan	140503	164472	198162	214323	149596
21.	Sikkim	2185	2728	2417@	2167	1712
22.	Tamil Nadu	209696	258823	269380	276415	224928
23.	Tripura	14148	15779	26662@	20923	8272
24.	Uttar Pradesh	580802	666474	766063	793923	610842
25.	West Bengal	287052	243921	239674	288277	233938
	Total—States	**3053301**	**3723267**	**3952905**	**4214484**	**3185987**
26.	A & N Islands	742	2303	1640	1588	1742
27.	Chandigarh	116	120	60	..	..
28.	D & N Haveli	677	1080	445	455	385
29.	Delhi	2146	4380	3038	3062	2360
30.	Daman & Diu	..	..	1042	595	732
31.	Lakshadweep	554	444	900	459	370
32.	Pondicherry	3142	5675	3480@	4829	1970
	Total—U.Ts	7377	14002	10605	10988	7559
	Total—States & UTs.	**3060678**	**3747269**	**3963510**	**4225472**	**3193546**

*Including Daman & Diu U.T.

@Targets revised due to additional funds released to these States

Annexure 5.5

Concurrent Evaluation of IRDP—January, 1987 to Septembrer, 1987—Summary of Findings.

Items	All India Average (%) unless otherwise specified.
1	2
1. Incomewise distribution of beneficiaries.	
1—2265 . . . Rs	47
2266—3500 . . . Do	50
3501—4800 . . . Do	3
2. Incomewise distribution of as assesed by Investigator	
1—2265 . . . Rs.	24
2266—3500 . . . Do	45
3501—4800 . . . Do	22
4801—6400 . . . Do	5
Above 6400 . . . Do	4
3. Income difference a per records and as : and as assessed by Investigator .	
0—250 . . . Rs	25
251—500 . . Do	19
501—1000 . Do	22
Above 10000 . . . Do	34
4. Cases identified whose income was between Rs. 4800-6400 .	5
5. Cases identified whose income was moe than Rs. 6400 . . .	4
6. Selection by	
(i) Gram Sabha . . .	60
(ii) Officilas . . .	37
(iii) Others . . .	3
7. Schemes categorywise .	
(i) Agriculture . . .	13
(ii) Irrigation	3
(iii) Secondary Sector .	8
(iv) Tertiary Sector .	43
(v) Milch Animal	20
(vi) Animal Husbandry .	13
8. Sufficiency of Assistance	
(i) Enough . . .	81
(ii) Not enough—used own money additionally .	14
(iii) Not enough—borrowed money additionally .	5
9. Differences betwee cost and value of assets as per beneficiary's assment.	
0 .	72
1—250 . . .	4
251—500 . . .	5
501—1000 . . .	4
above —1000 . . .	15
10. Working Capital .	
(i) Included . . .	36
(ii) Not included .	24
(iii) Not required .	40
11. Bankwise distribution of loans	
(i) Commercial Bank .	69
(ii) Regional Rural Bank .	25
(iii) Cooperative Banks .	6
12. Cases of loan repayment period	
(i) Less than 3 years .	13
(ii) Equal to 3 years .	36
.3. Amount of overdues.	
0 . . . Rs.	43
1—250 . . . Do	6
251—1000 . . . Do	25
1001—2000 . . . Do	18
Above 2000 . . . Do	8
14. Reasons for overdues.	
(i) Inadequate Income .	55
(ii) Unforeseen calamity .	9
(iii) Tight Repayment Schedule	3
(iv) Others . . .	3
15. Status of Assets.	
Not Intact. . . .	29
16. Reasons for assets not being intact	
(i) Unexpected events	23
(ii) Inadequate income	21
(iii) Costly majntenance	5
(iv) Defective	16
(v) Others	35
17. Insurance of Assets	
(i) Done	45
(ii) Not done	26
(iii) Not required	29

Annexure—5.5 (Concld.)

1	2
18. Training in asset handling	
(i) Provided	4
(ii) Not Provided	30
(iii) Not required	66
19. After care support	
(i) Provided	23
(ii) Not provided	55
(iii) Not required	22
20. Income from Assets	
0 Rs.	22
1—500 Do	10
501—1000 Do	17
1001—2000 Do	24
Above 2000 Do.	27
21. People crossing the income level of Rs. 3500	61

1	2
22. People crossing the Poverty line of Rs. 6400	13
23. Employment under other programmes	
(i) NREP/RLEGP	9
(ii) TRYSEM/DWCRA	4
24. Organisation of beneficiaries	9
25. Organisation to look after beneficiaries interest	6
26. Percent age increase in family income as assessed by the Investigator.	
0	21
1—25	20
26—50	23
51—1000	23
Above 100	13

TRYSEM—State/U.T-wise performance during 1985-86, 1986-87 and 1987-88

Sl. No.	Name of the States/U.Ts.	1985-86		1986-87		1987-88	
		Total number of youth trained	% of employed to trained youth	Total Number of youth trained	% of employed to trained youth	Total number of youth trained (Provisional)	% of employed to trained youth
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Andhra Pradesh	7388	59.4	10394	54.8	11382	61.7
2.	Arunachal Pradesh	97	77.3	253	79.4	167	85.0
3.	Assam	5492	51.1	4409	61.0	4672	27.6
4.	Bihar	18517	24.6	15401	45.6	16083	54.3
5.	Goa*	2292	70.6	1639	73.4	1565	79.0
6.	Gujarat	7614	50.6	10725	50.9	14540	53.1
7.	Haryana	3317	8.5	2789	17.9	2531	21.6
8.	Himachal Pradesh	2647	72.5	2138	73.4	2461	74.3
9.	Jammu & Kashmir	3019	50.4	3793	65.3	1699	9.9
10.	Karnataka	6685	44.0	5768	34.9	5092	54.3
11.	Kerala	3717	59.2	4835	67.3	5849	65.9
12.	Madhya Pradesh	14372	63.1	18258	55.3	15405	61.5
13.	Maharashtra	13150	76.0	14179	74.6	13056	85.7
14.	Manipur	497	108.8	1342	29.9	1340	82.8
15.	Maghalaya	28	Nil	24	Nil	95	Nil
16.	Mizoram	492	73.9	890	18.5	705	19.1
17.	Nagaland	422	N.R.	263	87.4	242	Nil
18.	Orissa	6173	81.9	8286	69.3	13212	83.9
19.	Punjab	9030	48.3	7584	71.7	8206	100.0
20.	Rajasthan	13544	75.5	13039	63.8	16961	74.3
21.	Sikkim	298	N.R.	303	N.R.	185	N.R.
22.	Tamil Nadu	12537	55.5	13177	54.4	12562	50.2
23.	Tripura	622	5.6	1446	15.1	2450	5.6
24.	Uttar Pradesh	36578	57.5	87542	60.4	38524	57.8
25.	West Bengal	8092	64.2	4943	54.8	4385	53.7
	U.Ts.						
26.	A & N Islands	47	100.0	29	Nil	26	Nil
27.	Chandigarh	Nil	Nil	135	17.0	Nil	Nil
28.	D & N Haveli	24	74.9	104	60.5	105	19.0
29.	Daman & Diu	—	—	—	—	80	75.0
30.	Delhi	628	15.9	620	25.1	876	10.0
31.	Lakshadweep	37	100.0	25	64.0	35	82.9
32.	Pondicherry	154	100.0	265	100.0	307	47.9
	All India	**177510**	**56.0**	**184598**	**57.6**	**194798**	**61.9**

*Includes progress for Daman & Diu for 1985-86 and 1986-87

TRYSEM—Strengthening of Training Infrastructure

(Rs. in lakhs)

Sl. No.	State/U.T.s	1985-86 Central Release	1986-87 Central Release	1987-88 Allocation (Central)	1987-88 Central Release	1988-89 Central Allocation
1	2	3	4	5	6	7
1.	Andhra Pradesh	7.09	30.05	38.80	38.80	47.00
2.	Arunachal Pradesh	..	5.28	3.43	5.24	4.12
3.	Assam	..	10.12	12.18	12.18	14.07
4.	Bihar	..	65.33	75.06	..	91.64
5.	Goa*	..	2.80	1.71	2.51	1.70
6.	Gujarat	4.25	14.28	18.95	121.15	22.30
7.	Haryana	2.52	6.50	6.01	7.03	6.30
8.	Himachal Pradesh	..	4.32	3.44	..	3.07
9.	J & K	..	5.08	5.41	..	5.50
10.	Karnataka	3.38	43.06	23.15	23.15	28.62
11.	Kerala	..	10.64	14.60	14.60	16.98
12.	Madhya Pradesh	2.35	56.24	52.23	24.695	63.41
13.	Maharashtra	14.97	35.51	39.49	39.49	48.83
14.	Manipur	..	1.12	1.15	..	1.29
15.	Meghalaya	..	1.52	1.72	1.72	1.94
16.	Mizoram	..	2.60	1.43	2.86	1.72
17.	Nagaland	..	1.88	1.50	1.50	1.80
18.	Orissa	..	21.44	28.96	28.96	34.45
19.	Punjab	0.35	5.72	6.51	6.51	6.63
20.	Rajasthan	7.68	18.66	25.69	50.145	30.88
21.	Sikkim	..	0.64	0.29	..	0.35
22.	Tamil Nadu	9.05	34.51	37.79	33.56	44.79
23.	Tripura	..	1.04	1.37	..	1.45
24.	Uttar Pradesh	9.10	76.47	103.98	103.98	126.13
25.	West Bengal	0.68	33.15	42.17	30.16	51.09
	UTs					
26.	A & N Islands	..	0.64	0.71	0.71	0.85
27.	Delhi	..	1.44	0.71	..	0.85
28.	Chandigarh	0.59	0.88	0.14	..	0.18
29.	D & N Haveli	..	0.36	0.14	..	0.18
30.	Daman & Diu	..	..	..	..	0.85
31.	Lakshadweep	..	0.44	0.71	0.71	0.85
32.	Pondicherry	..	1.48	0.57	0.34	0.68
	All India	62.04	493.20	550.00	550.00	6.65

*Includes provision for Daman & Diu for 1985-86, 1986-87, 1987-88.

Annexure 5.8

NREP—Statewise plan outlays/expenditure

(Rs. lakhs)

States	1985-86 Actuals	1986-87 Actuals	1987-88		1988-89 Outlay
			Outlay*	Exp.	
1. Andhra Pradesh	4735.80	5892.22	8721.77	6755.87	8563.46
2. Arunachal Pradesh	34.48	37.69	58.44	53.70	96.14
3. Assam	736.22	1352.38	1623.96	1149.32	1872.42
4. Bihar	7065.17	9408.91	12624.80	12468.72	13187.20
5. Goa	77.60	58.59	77.54	63.05	97.40
6. Gujarat	1568.00	2908.41	3483.65	3924.07	2938.62
7. Haryana	472.14	554.76	893.59	795.70	889.63
8. H.P.	290.24	384.32	583.23	485.61	552.92
9. J & K	422.37	1563.43	1166.52	1726.49	671.41
10. Karnataka	3782.59	2972.61	4464.25	3922.92	3961.44
11. Kerala	1896.52	2782.09	3544.24	2640.73	3462.27
12. M.P.	3332.19	8299.33	7990.72	8134.04	7222.10
13. Maharashtra	3648.33	3834.72	6236.62	4304.58	6878.30
14. Manipur	49.41	108.76	171.72	105.44	111.47
15. Meghalaya	59.84	84.41	103.46	67.28	125.91
16. Mizoram	33.81	37.93	57.11	37.83	76.66
17. Nagaland	69.45	96.12	114.28	90.00	88.14
18. Orissa	2063.86	2813.96	4424.63	3718.86	3800.84
19. Punjab	757.73	577.00	1042.81	607.19	948.73
20. Rajasthan	4826.74	6565.67	3907.84	4233.70	3581.29
21. Sikkim	48.57	63.88	78.96	75.61	77.77
22. Tamil Nadu	4469.03	5436.44	7453.00	6108.58	6913.04
23. Tripura	159.06	218.52	336.23	306.58	270.83
24. Uttar Pradesh	9585.78	11079.24	17021.97	12568.59	16240.02
25. West Bengal	2839.42	4442.27	6189.08	3949.78	7049.22
Union Territories					
26. A & N Islands	41.60	82.38	92.78	68.31	64.81
27. Chandigarh	12.47	9.74	23.52	7.53	21.16
28. D & N Haveli	26.59	13.52	40.14	36.60	34.26
29. Delhi	20.53	11.08	39.28	24.19	42.64
30. Daman and Diu	..	..	..	..	21.67
31. Lakshadweep	31.97	28.17	39.24	31.85	33.89
32. Pondicherry	37.54	58.58	91.46	59.10	57.96
Total—States & UTs	**53195.05**	**71777.13**	**92496.84**	**78521.77**	**89953.62**

*Revised Outlay

Note—Total does not include outlay/expenditure at the Central level.

Annexure 5.9

NREP—Statewise physical targets and Achievement

(in lakh mandays)

States	1985-86 Achieve.	1986-87 Achieve.	1987-88		1988-89 Target
			Target	Achieve.	
1	2	3	4	5	6
1. Andhra Pradesh	214.48	264.22	347.56	238.34	342.55
2. Arunachal Pradesh	2.17	1.95	2.44	2.15	2.95
3. Assam	25.77	51.35	54.03	33.82	55.05
4. Bihar	416.27	370.52	406.41	467.58	416.00
5. Goa	3.79	2.33	2.48	2.56	2.70
6. Gujarat	69.71	132.83	112.23	172.21	133,60
7. Haryana	14.77	16.74	21.34	22.15	23.05
8. H.P.	15.98	20.49	21.77	23.36	18.40
9. J & K	19.11	42.77	25.11	38.16	24.85
10. Karnataka	201.45	138.55	245.84	219.31	202.15
11. Kerala	84.23	105.32	114.97	98.75	115.40
12. M.P.	212.82	383.91	387.44	507.36	361.10
13. Maharashtra	250.03	237.62	246.90	262.23	382.10
14. Manipur	2.65	6.87	3.89	5.96	4.10
15. Meghalaya	3.89	4.03	6.36	2.66	5.72
16. Mizoram	1.58	1.32	2.25	1.32	2.40
17. Nagaland	2.56	3.20	3.97	4.31	2.90
18. Orissa	147.83	181.77	201.75	224.99	190.05
19. Punjab	27.34	19.04	17.65	18.60	24.40
20. Rajasthan	497.86	929.63	162.68	239.96	127.85
21. Sikkim	2.36	2.82	3.16	3.70	2.80
22. Tamil Nadu	298.07	333.99	352.53	322.40	314.20
23. Tripura	7.12	11.04	12.23	14.98	9.70
24. Uttar Pradesh	501.90	465.23	642.63	553.51	580.00
25. West Bengal	130.95	217.61	225.66	155.07	215.70
Union Territories					
26. A & N Islands	2.82	3.64	2.35	2.90	1.75
27. Chandigarh	0.35	0.35	0.40	0.49	0.50
28. D & N Haveli	1.94	0.65	2.30	2.51	1.55
29. Delhi	0.28	0.33	1.24	1.00	1.10
30. Daman and Diu	..	..	..	..	0.60
31. Lakshadweep	1.66	1.32	1.66	1.70	1.40
32. Pondicherry	2.40	2.48	4.35	3.22	2.90
Total—States & UTs	**3164.14**	**3953.92**	**3635.58**	**3697.26**	**3569.52**

Annexure 5.10

NREP-Foodgrains released and utilised during 1985-86, 1986-87, 1987-88

(In MTs)

States		1985-86		1986-87		1987-88	
		Released	Utilisation	Released	Utilisation	Released	Utilisation (Prov.)
1	2	3	4	5	6	7	8
1.	Andhra Pradesh	67900	18300	120560	96561	109960	82176
2.	Arunachal Pradesh	160	16	780	7	580	7
3.	Assam	14850	889	10040	6568	15230	6166
4.	Bihar	103150	67527	224000	156126	145068	157595
5.	Goa	118	—	900	Nil	835	Nil
6.	Gujarat	23700	9390	99420	75212	50816	50159
7.	Haryana	5450	3798	9320	8521	13496	10917
8.	H.P.	2300	1966	6000	4896	8378	7997
9.	J&K	11850	7012	32400	18247	11200	17295
10.	Karnataka	39300	10993	82897	40510	80115	121954
11.	Kerala	29850	24178	37680	36553	49762	42499
12.	M.P.	69200	38551	227960	190258	116985	127791
13.	Maharashtra	10550	—	11450	10345	29360	13891
14.	Manipur	230	177	1080	981	750	642
15.	Meghalaya	260	41	760	601	1065	577
16.	Mizoram	90	—	780	—	580	Nil
17.	Nagaland	700	150	1220	1220	1508	930
18.	Orissa	35700	17877	44040	49271	60821	65791
19.	Punjab	6950	6950	9920	9920	15278	6728
20.	Rajasthan	202600	190102	238800	252727	60059	49299
21.	Sikkim	590	229	1062	638	1105	1023
22.	Tamil Nadu	69300	54033	94800	100608	97340	96551
23.	Tripura	7400	1012	1640	2849	5010	5176
24.	Uttar Pradesh	199850	113495	276340	203730	264262	198264
25.	West Bengal	52900	13508	75340	56493	52880	44824
Union Territories							
26.	A&N Islands	165	203	780	404	1856	1004
27.	Chandigarh	35	10	220	37	566	25
28.	D&N Haveli	250	223	400	191	805	667
29.	Delhi	60	18	350	24	848	100
30.	Daman & Diu	—	—	—	—	—	—
31.	Lakshadweep	50	166	360	137	415	339
32.	Pondicherry	175	205	780	301	1755	650
Total—States & UTs		955683	581019	1612079	1323936	1198688	1111037

Annexure 5.11

RLEGP—Statewise Plan Outlays/Expenditure (inclusive of value of Foodgrains)

(Rs. lakhs)

Sl. No.	States	1985-86 Act. Exp.	1986-87 Act. Exp.	1987-88		1988-89 Outlay
				Outlay	Exp. (Prov.)	
1	2	3	4	5	6	7
1.	Andhra Pradesh	5037.18	7080.68	6232.32	5877.42	6561.90
2.	Arunachal Pradesh	16.00	24.11	54.06	33.63	50.50
3.	Assam	452.98	1257.56	1305.87	1013.93	1374.10
4.	Bihar	4658.26	8385.88	8966.39	10820.71	9653.80
5.	Goa	48.33	58.79	91.90*	65.10	78.90
6.	Gujarat	1512.63	1872.96	2158.72	2618.37	2261.80
7.	Haryana	522.47	642.63	608.81	662.83	644.00
8.	H.P.	227.30	308.35	403.38	364.61	340.00
9.	J&K	160.98	409.88	439.18	456.69	414.40
10.	Karnataka	2236.82	2802.81	3012.00	2938.75	3166.10
11.	Kerala	2076.00	3263.48	2452.80	2386.50	2579.70
12.	M.P.	2878.68	4848.20	5410.86	4459.90	5869.50
13.	Maharashtra	3790.03	3550.10	4160.20	3705.99	5482.70
14.	Manipur	24.72	65.14	74.50	59.40	71.50
15.	Meghalaya	46.23	67.12	97.46	48.35	95.55
16.	Mizoram	15.24	272.80	54.06	33.92	43.00
17.	Nagaland	70.70	90.42	80.54	74.00	84.00
18.	Orissa	1719.98	2781.77	2874.13	3553.06	3030.00
19.	Punjab	583.30	789.32	649.00	809.30	678.50
20.	Rajasthan	1107.56	2475.92	2558.96	3537.05	2697.10
21.	Sikkim	40.14	65.58	52.69	63.79	44.00
22.	Tamil Nadu	4354.34	5728.79	5133.27	5190.47	5406.65
23.	Tripura	183.58	238.45	217.69	213.41	184.50
24.	Uttar Pradesh	9412.84	11749.82	11634.20	11018.08	11975.60
25.	West Bengal	2133.43	4637.06	4938.18	3752.31	5193.85
	Union Territories					
26.	A&N Islands	6.63	26.00	66.46	48.06	41.30
27.	Chandigarh	11.22	1.91	18.06	Nil	Nil
28	D&N Haveli	9.44	19.97	33.69	30.70	21.00
29.	Delhi	10.82	14.29	41.09	28.51	44.75
30.	Daman and Diu	—	—	N.A.	—	10.95
31.	Lakshadweep	13.27	16.33	17.96	9.97	20.30
32.	Pondicherry	44.41	42.08	66.46	60.77	44.25
	Total—States & UTs	43505.51	63588.20	63935.91	63935.67	67995.00

*including Daman and Diu

Note : Total does not include the outlays/expenditure at the central level.

Annexure 5.12

RLEGP—Statewise physical targets and achievements

(Lakh mandays)

Sl. No.	States	1985-86 Achieve.	1986-87 Achieve.	1987-88		1988-89 Target
				Target	Achieve. (Prov.)	
1	2	3	4	5	6	7
1.	Andhra Pradesh	224.99	299.83	248.32	249.19	262.48
2.	Arunachal Pradesh	1.12	1.30	2.08	1.48	1.58
3.	Assam	22.32	42.42	38.25	35.81	40.41
4.	Bihar	232.73	328.66	285.88	379.46	304.55
5.	Goa	1.99	2.24	2.54	2.47	2.19
6.	Gujarat	70.62	79.63	71.33	96.84	102.81
7.	Haryana	15.18	17.12	14.90	18.36	16.95
8.	H.P.	15.85	18.51	16.74	16.95	11.36
9.	J&K	8.59	18.55	18.05	13.46	15.35
10.	Karnataka	188.29	170.29	181.83	191.55	161.54
11.	Kerala	76.89	113.72	81.44	85.32	86.00
12.	M.P.	194.24	278.83	279.32	284.93	284.98
13.	Maharashtra	230.27	233.25	231.09	231.81	304.60
14.	Manipur	0.47	3.41	2.76	3.22	2.65
15.	Meghalaya	2.02	2.77	4.43	2.58	4.34
16.	Mizoram	1.06	12.04	2.08	1.15	1.34
17.	Nagaland	2.56	3.01	2.68	4.83	2.80
18.	Orissa	121.29	175.94	143.14	186.41	151.50
19.	Punjab	20.69	18.02	19.57	20.73	15.58
20.	Rajasthan	4.27	152.26	115.31	201.03	96.33
21.	Sikkim	1.67	2.89	2.40	3.07	1.57
22.	Tamil Nadu	288.45	320.39	255.66	285.12	245.76
23.	Tripura	12.09	8.78	9.07	10.57	6.59
24.	Uttar Pradesh	468.25	527.61	500.85	515.84	427.70
25.	West Bengal	110.64	219.74	144.83	164.15	158.93
	Union Territories					
26.	A&N Islands	0.29	1.07	1.80	2.23	1.12
27.	Chandigarh	0.24	0.14	0.55	Nil	Nil
28.	D & N Haveli	0.81	0.59	1.87	2.01	0.95
29.	Delhi	0.32	0.36	1.31	1.37	1.19
30.	Daman and Diu	—	—	—	—	0.30
31.	Lakshadweep	0.84	1.05	0.75	0.13	0.84
32.	Pondicherry	0.75	1.22	3.32	2.61	2.21
	Total—States & UTs	2379.79	3055.68	2684.15	3018.62	2716.50

Annexure 5.13

RLEGP—Foodgrains released and utilised during 1985-86, 1986-87 and 1987-88

(In MTs)

Sl. No	States	1985-86		1986-87		1987-88	
		Released	Utilised	Relased	Utilised	Released	Utilised (Prov.)
1	2	3	4	5	6	7	8
1.	Andhra Pradesh	65900	16300	95560	91400	105961	74232
2.	Arunachal Pradesh	142	90	780	77	380	4
3.	Assam	14418	727	10040	4494	10270	8166
4.	Bihar	99650	36948	140560	125274	144090	128529
5.	Goa	207	Nil	900	Nil	867	Nil
6.	Gujarat	23244	4448	26460	24939	40816	30276
7.	Haryana	5346	3056	9320	8405	11496	10420
8.	H.P.	1683	772	6000	4759	6678	5941
9.	J&K	7207	1456	7400	4179	8200	3164
10.	Karnataka	37800	3612	63620	54023	51115	41893
11.	Kerala	29250	21811	62680	59124	41762	32331
12.	M.P.	65791	27920	82960	72613	91985	62354
13.	Maharashtra	18933	8499	22900	17596	24360	21199
14.	Manipur	208	Nil	540	582	744	450
15.	Meghalaya	264	25	760	481	1546	597
16.	Mizoram	131	Nil	780	Nil	380	Nil
17.	Nagaland	688	133	1220	1220	1208	810
18.	Orissa	37328	11875	36263	37643	43821	50746
19.	Punjab	6950	—	9920	6228	12278	9011
20.	Rajasthan	52300	21686	38800	52272	48059	43924
21.	Sikkim	574	166	622	426	805	861
22.	Tamil Nadu	66800	44535	79948	90538	87241	74211
23.	Tripura	7353	957	1640	1415	2629	2640
24.	Uttar Pradesh	174250	89518	276340	175612	219261	157914
25.	West Bengal	51529	7912	62377	45659	74452	45366
	Union Territories						
26.	A&N Islands	148	44	780	147	1555	732
27.	Chandigarh	28	2	220	2	556	Nil
28.	D & N Haveli	137	169	400	170	805	524
29.	Delhi	58	23	350	299	848	136
30.	Daman and Diu	—	—	—	—	—	—
31.	Lakshadweep	40	84	220	122	215	110
32.	Pondicherry	157	40	780	152	1555	803
Total	**States & UTs**	**768514**	**302809**	**1041240**	**879952**	**1041018**	**897354**

Annexure 5.1

Drought-Prone Area Programme—Plan outlay/expenditure

(Rs. in lakhs)

Sl. No.	States	1985-86 Exp.	1986-87 Exp.	1987-88		1988-89
				Approved Allocations	Exp. (provisional)	Approved Allocation
1	2	3	4	5	6	7
A. States						
1.	Andhra Pradesh	807.91	1308.43	1035.	1035.98	1203
2.	Bihar	531.51	1011.57	810	900.88	828
3.	Gujarat	514.74	719.80	645	768.48	746
4.	Haryana	125.82	135.74	135	110.96	135
5.	J & K	214.12	191.18	195	168.49	214.5
6.	Karnataka	898.31	896.80	1055	754.61	1249
7.	M.P.	736.50	723.67	735	607.65	809
8.	Maharashtra	952.09	1133.52	1110	974.12	1343
9.	Orissa	409.97	560.30	585	639.47	621
10.	Rajasthan	236.04	670.70	450	504.30	514
11.	Tamil Nadu	375.93	570.19	645	695.27	657
12.	Uttar Pradesh	1085.70	1510.98	1305	1433.36	1386
13.	West Bengal	425.85	432.49	510	275.31	517.5
Total		**7314.49**	**9865.37**	**9225**	**8918.88**	**10223**
B. Centre						
	Provision for Central DPAP Cell and Studies	15.00	16.00	37.00	N.A.	18
Total (A+B)		**7329.49**	**9880.37**	**9262**	**8918.88**	**10241**

Annrexure 5.15

Drought Prone Area Programme-Physical Achievements

(hectares)

States	1985-86			1986-87			1987-88			Targets under 1988-89		
	Area treated under soil & moisture conservation	Irrigation potential created	Area covered under forestry & pasture	Area treated under S&M conservation	Irrigation potential created	Area covered under forestry & Pastures	Area treated under S&M conservation	Irrigation potential created	Area covered under forestry conservation	Area to be treated under S&M conservation	Irrigation potential to be created	Area to be covered unde Forestry conservation
1	2	3	4	5	6	7	8	9	10	11	12	13
Andhra Pradesh	9996	8300	1494	14569	9295	5464	12713	9402	4951	36090	24060	30075
Bihar	522	2420	2295	2259	7367	3767	5150	3210	4690	21915	24840	20700
Gujarat	1310	682	4205	1475	3887	4703	3495	4807	8497	22380	14920	18650
Haryana	437	65	500	3081	117	908	728	614	211	4050	2700	3375
J. & K.	1024	318	—	112	76	—	1306	558	70	6435	4290	5362
Karnataka	13380	6254	3584	5417	3609	3102	9151	5950	3593	37470	24980	31225
M.P.	2447	1477	8579	2852	2849	8881	4073	1309	11158	39462	16180	20225
Maharashtra	3315	15759	9478	36	19638	15498	—	16059	19580	40290	26860	33575
Orissa	6631	285	3577	1700	2307	2952	3445	1703	2723	18630	13035	15220
Rajasthan	1392	163	1385	6845	574	3375	3622	243	3404	15420	10280	12850
Tamil Nadu	3302	869	1545	3391	874	1080	3318	320	6092	19710	13140	16425
Uttar Pradesh	23516	5574	9602	30954	6542	6015	13894	4680	6134	41580	27720	34905
West Bental	919	3147	6054	887	3043	2100	464	3518	4289	15525	10350	12937
Total	**68279**	**45401**	**52290**	**73533**	**60173**	**57345**	**63461**	**52257**	**70372**	**318957**	**213405**	**255524**

CHAPTER 6

IRRIGATION, COMMAND AREA DEVELOPMENT AND FLOOD CONTROL

Irrigation.

Irrigation projects are classified into three categories viz. Major, Medium and Minor Irrigation projects on the basis of culturable command areas benefited as shown below :--

(i) Major Irrigation projects —having CCA of more than 10,000 ha.

(ii) Medium Irrigation projects—having CCA of more than 2,000 ha. but less tha 10,000 ha.

(iii) Minor Irrigation projects —having CCA of 2,000 ha. or less.

Under the Minor Irrigation projects, both surface and ground water development projects are included.

6.2 Annual Plan for 1987-88 envisaged creation of an additional potential of 2.4 million ha. and utilisation of 2 million ha. against which an additional potenial of 2.3 million ha. is expected to be created with likely utilisation of 1.9 million ha. during the year 1987-88. With this, about 50 per cent of the potential and 52 per cent of the utilisation envisaged for the 7th Plan will have been achieved. During the year 1987-88, it is expected that an amount of Rs. 2888 crores would have been spent. Thus during the first three years of the 7th Plan about 56 per cent of the oulay would have been spent on irrigation projects.

Table No. 6.1a shown below indicates the outlays and expendiure during the 7th Plan in respect of major, medium and minor irrigation projects. Similarly, Table 6.1.b show benefits to be realised during the 7th Plan.

TABLE 6.1 (a)

Plan outlays—7th Plan—85-86, 86-87 & 87-88

(Rs. crores)

Sl. No.	Item	7th Plan Outlay	Actual expendr. 85-86	1986-87	1987-88 (Plan provision)	Revised Estimate
1	2	3	4	5	6	7
1.	Major & Medium Irrgn.	11555.56	1880.15	2168.58	2573.45	2231.09
2.	Minor Irrgn.	2804.99	492.77	588.02	681.77	647.93
	Total	**14360.55**	**2372.92**	**2756.60**	**3255.22**	**2879.02**

TABLE 6.1 (b)

7th Plan targets & achievements for 85-86 and 86-87 and trargets for 87-88.

(million ha.)

Sl. No.	Item	7th Plan target		Additional during 85-86		Benefits 86-87		87-88 target		Anticipated achevement	
				85-86		86-87		87-88			
		Pot	Utl	Pot	Utl	Pot	Utl	Pot	Utl	Pot	Utl
1	2	3	4	5	6	7	8	9	10	11	12
1.	Major & Medium irrign.	4.30	3.90	0.51	0.49	0.46	0.66	0.70	0.64	0.68	0.53
2.	Minor irrign.	8.60	7.00	1.52	1.31	1.64	1.37	1.68	1.41	1.62	1.45
	Total	**12.90**	**10.90**	**2.03**	**1.80**	**2.10**	**2.03**	**2.38**	**2.05**	**2.30**	**1.98**
	or say	**13.00**	**11.0**	**2.00**	**1.80**	**2.1**	**2**	**2.4**	**2**	**2.3**	**1.9**

6.3 A review of the position in respect of major and medium as well as minor irrigation development is shown in the following paras.

MAJOR AND MEDIUM IRRIGATION

6.4 Review for 1987-88

Although the year experienced heavy drought conditions the targets in respect of major and medium irrigation suffered a marginal shortfall. Against the target of 7 lakh ha. creation of additional potential 6.8 lakhs were created and against the target of 6.4 lakh ha. of utilisation 5.3 lakh were realised. The performance shown here has to be firmed up in the light of actual data to be made available in the course.

Programme for 1988-89

In the year 1988-89, emphasis has been laid on speedy completion of on going projects and restricting the new starts to medium projects in drought prone tribal and backward areas. An exercise has been undertaken in the Planning Commission to identify the projects which can give early benefits and then to allot funds accordingly on priority basis. Projectwise outlays were decided including earmarking for selected projects with a view to get maximum return of the available funds. In addition to normal Plan provisions an outlay of Rs. 256 crores has been made available to selected states affected by severe drought conditions for identified portions of on-going projects to get additional irrigation benefits. These funds were under drought relief programme and aimed at creating some additional irrigation facility to act as an insurance against future droughts (See Annexure 6.8). During Mid-term appraisal of the plan target of 7th Plan for Food production were reviewed. In order to ensure that there is no slippage in the targets an action plan has been formulated. This action plan provided for accelerating|ensuring food production targets in selected States. To achieve this, an outlay of Rs. 100 crores is made available for selected position of some irrigated projects in these states as advances Plan assistance. As regards completion of unfinished projects the order of priority would be :—

(i) To honour commitments made to external aiding agencies by providing funds commensurate with the commitment for the external aided projects.

(ii) To ensure completion of medium projects by providing the full spill over cost.

(iii) To ensure provision of matching funds by the participating states in respect of interstate projects as per their agreement.

(iv) Provision of funds for modernisation of existing works after fixing up suitable priorities.

(v) Provision of adequate funds for construction of water courses from the 40 ha. outlet to 5—8 ha. block at the cost of the irrigation projects in respect of projects in which no such provision had been made in the original estimates.

6.6 During 1987-88 certain provisions were made as earmarked outlay for post-facto performance evaluation of completed projects. This was done with a view to help in future planning of new projects by learning lessons from performance of old projects. Some of the states have undertaken post-facto evaluation of projects but more is proposed to be done during 1988-89 for which certain outlays have been earmarked in the State Plan to continue the work undertaken during the previous year in respect of some states and take up new evaluation studies for few other states.

6.7 Monitoring of projects is an important activity for ensuring for timely scheduled completion of projects. Under the CWC a monitoring group had been set up for providing assistance in execution of 66 major projects in country and in reviewing the bottlenecks coming in their execution in terms of design, shortage of manpower, availability of construction materials and land acquisition or any other matter coming in the way of progress. More stress is being laid for making monitoring work more effective. In addition, Planning Commission is also monitoring the financial progress of earmarked projects in the various states.

6.8 It has been realised that the irrigation projects are not self dependent and are incurrig losses every year. To reduce these losses the necessity of reviewing water rate structure needs to be reviewed and rationalising the same so that the revenue collected cover at least operation and maintenance charges. This is being increasingly stressed to the State authorities. A special review of existing operation and maintenance arrangement on Irrigation projects is being undertaken during 1988-89.

6.9 The necessity of having adequate proper planning studies carried out before finalising the project has been realised and more and more stress is being laid on this important aspect of project formation. The advisory Council on Water Management has taken a considered decision to this effect.

MINOR IRRIGATION

6.10 Review for 1987-88

As against an approved outlay of Rs. 681.77 crores for the minor irrigation programme in 1987-88 the anticipated expenditure is Rs. 637.27 crores. The physical achievements show marginal shortfall with regard to creation of irrigation potential. Against the target of creating an irrigation potential of 1.68 mill. ha. the anticipated achievement is 1.62 mill. ha. But in terms of utilisation, target of 1.4 mill. ha. is likely to be achieved. The shortfall in the achievement of targets in creating irrigation potential are attributed to unprecidented drought in several parts of the country thin spreading of financial resources by the States over a number of projects, set back to flow of institutional credit due to mounting of over-dues, increased unit cost of project due to price escalation, increased input of subsidy etc. Special attention has been paid for assessment of ground water development in the North eastern States particularly Mizoram and Nagaland and Central team constituted by the Ministry of Water Recources visit to these States.

The Centrally sponsored Schemes for strengthening of surface water (minor irrigation) and ground water organisations in States and UTs encouraging irrigation through the use of sprinklers, hydrums, etc. by small and marginal farmers and rectification-cum-demonstration of diesel pumpsets were continued. Centrally sponsored Scheme with 100 p c. Centrl Assistance was introduced during 1986-87 for conducting census of minor irrigation projects in all the Union Territories. This is likely to be completed during 1988-89. A new Centrally sponsored scheme for rationalisation of minor irrigation statistics is being operated during the year. Under this scheme 100 per cent Central Assistance is available to the States and UTs. for creation of Statistical Cells in the Nodal Department identified by the States for compilation of minor irigation statistics for that State. This scheme has been introduced on account of multiplicity of organisations dealing with minor irrigation in various States and there is need for coordinating prgorammes in the States in totality. The Central Ground Water Board, an apex organisation at the national level with the responsibility of carrying out hydrogeological surveys, exploration, evaluation, monitoring of ground water systems and ground water quality, assists the States in the drought affected areas during the year by diverting 25 drilling rigs for construction of water supply tubewells on deposit basis. Against a target of covering 2 lakh sq. kms. under systematic hydrogeological surveys the coverage is expected to be 1.2 lakh sq. kms. as the Board has to divert their staff and equipment for assisting the States in location of water supply tubewell sites. For assessing the changed in ground water regin, the Board has drawn up a programme for ground water surveys in tribal areas, drought prone areas and Northeastern regions

Programme for 1988-89

The main considerations in the formulation of the Minor Irrigation Programme for the year are :—

(i) Prioritisation of on-going surface water schemes which would yield full benefits as early as possible.

(ii) Stepping up institutional investment to the maximum extent possible.

(iii) Provision of subsidy to small and marginal farmers to encourage private minor irrigation programme.

(iv) Encouraging minor irrigation programme for tribal, backward, drought prone areas and areas having predominantly SC|ST farmers.

(v) Encouraging irrigation schemes utilising non-conventional sources of energy like sprinklers, hydrums, strengthening of surface water and ground water organisation in the States, improving efficiency of diesel pumpsets.

(vi) Completion of census of minor irrigation projects in the entire country.

(vii) Completion of the action for setting up statistical cells in the Nodal Departments in various States and UTs for coordinating minor irrigation programme.

(viii) Covering 2 lakh sq. km. of area by C. G. W. B. under systematic hydrological Surveys and cover 1.6 lakh sq. km. under repraisal.

Under minor irrigation it is proposed to accelerate the programme through construction of 10 lakh dug wells, 6 lakh tubewells in selected areas and stopping up tank irrigation in selected States. The proposed scheme is to be implemented by the Department of Rural Development in the Ministry of Agriculture under which irrigation wells are provided free of cost for small and marginal farmers belonging to scheduled caste and scheduled tribe farmers who are below the poverty line. The shallow tubewells programme is implemented by the Department of Agriculture & Cooperation in the Ministry of Agriculture in selected districts of 8 States viz. Andhra Pradesh, Assam, Bihar Madhya Pradesh, Maharashtra, Orissa, Uttar Pradesh and West Bengal by providing irrigation facilities at low cost in this potentially high output and yield area. As these areas are served by a number of traditional irrigation commands and some of them have drainage problems which have surfaced on account of uncontrolled surface irrigation through tubewells would to some extent de-congest the area through vertical drainage. In some states like Andhra Pradesh, Gujarat, Madhya Pradesh, Orissa, Rajasthan and Tamil Nadu renovation of existing tanks and construction of new tanks are proposed to be accelerated by providing advance plan assistance for creating additional irrigation potential and the schemes are monitored by the Ministry of Water Resources. By the implementation of all these programmes it is proposed to step up minor irrigation potential by 28.77 lakh ha. during the year 1988-89 and in terms of utilisation the figure is 26.94 lakh ha.

6.12 Ground Water Balance Studies

The Central Ground Water Board in collaboration with National Institute of Hydrology has proposed to undertake model ground water balance studies in selected areas for continued monitoring of acqufer characteristics and to give guidelines by providing an estimate of the ground water resources that could be utilised on a continuing basis. The study will also provide inter-related effect of stressing a particular component and the other constituents of the hydrological cycle of the region. These studies for various identified districts would indicate the quantum of water that can be safely withdrawn. The study would also indicate the effect of planned development on the ground water regime.

Command Area Development

6.13 The Command Area Development programme was initiated in 1974-75 as a Centrally Sponsored Scheme with the objective of faster utilisation of created potential and optimum agricultural production from irrigated land. The programme broadly covers on-farm development works like construction of field channels, land levelling and shaping, field drains, construction of farm roads, consolidation of holdings, re-alignment of boundaries, introduction of system of warabandies for supply of water on a rotational basis to ensure equitable and assured supply of water to each and every farm holding. Programme also includes arrangements for supply of inputs and credit and agricultural extension, construction of markets and godowns and development of ground water for conjunctive use. Command area development is an orchestrated action of multi-disciplined system and involves coordination of overall development efforts in all the sectors in the command area through the medium of CAD authorities. While at the beginning of the 6th Plan, the number was only 76 projects, the programme at present covers 132 selected major and medium irrigation projects with a total CCA of about 17.30 million ha. in 19 states and 1 UT and the number of CAD authorities is 50. Financing of CAD programme is from three sources, viz. (i) Central assistance to the States on a matching basis for certain selected items of the programme. (ii) State Govt.'s own resources and (iii) Institutional credit for on-farm development marketing and storage and (iv) from external agencies like World Bank. As per the revised financing pattern which came into force from 1-4-1986 grants are given on a matching basis for the establishment cost of CAD authorities including management subsidy for farmers organisations for preparation, planning implementation and supervision of OFD works for topographical, soil and aerial surveys, introduction of warabandi systems including setting up a wireless communication network, adoptive trials, demonstration and training evaluation studies and crop compensation. These grants are also given on matching basis for a subsidy on loans to S&M farmers on IRDP pattern for land levelling and shaping, construction of field channels and tubewells, sprinkler and drip irrigation systems. Half the cost of the construction of field channels from outlet upto 5-8|ha. blocks is shared between state and Central Govt. Besides the half of the cost of the construction of field channels within 5—8 ha. block and construction of field drains is also provided in the form of 25 per cent loan and 25 per cent grant. Loans are also available on a matching basis for the purchase of equipment and machinery for carrying out OFD works and development of ground water.

In 1986-87 an expenditure of Rs. 94.09 crores was incurred on CAD programme under the central sector. In 1987-88 on outlay of Rs. 90 crores was provided under the central sector which is expected to be utilised in full. For the 7th Plan period an outlay of Rs. 500 crores has been provided in the central sector and Rs. 1170.71 crores in the State sector. About Rs. 100 crores is also expected to be available from the institutional sector. For 1988-89, an outlay of Rs. 125.00 crores in central sector and Rs. 220.79 crores in the state sector have been provided. Since the ultimate aim of the command area development programme is to increase production several suggestions have been forwarded to the State Government and interractions between the State and the Centre is in action. During 1987-88 physical targets and field channels, warabandies, field drains and land levelling have been fixed as 1.26 million ha., 1.58 million ha., 0.15 milion ha. and 0.24 million ha. respectively. From kharif 1985 onwards the CAD wing of the Ministry of Water Resources is monitoring the production targets also. The State Governments are advised to take up crop cutting experiments for reporting achievements of production. Crop cutting experiments conducted so far reveal that as against 1.7 tonnes per ha. average yield taken from irrigated area, some commands are giving average yield of 2.3 tonnes to ha.

During the 6th Plan period priority was given for establishing physical infrastructure required for the execution of CAD programme, while during the 7th Plan period more emphasis is given for consolidating the gains from investments already made. Necessary advice in this matter was given to the States and the financing pattern revised from 1-4-1986. Outlays and expenditure incurred during the Seventh Plan period are indicated in the following Tables 6.3(a) and 6.3(b).

TABLE 6.3(a)

Plan outlays in 7th Plan period—CAD programme

(Rs. crores)

Sl. No.	Item	7th Plan outlay	Actual expenditure		Approved outlay 87-88	R.E. 87-88	% of col $\frac{4+5+7}{\text{col. 3}} \times 100$
			1985-86	1986-87			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Command Area Development	1670.71	252.23	285.54	318.23	282.87	49.12

TABLE 6.3(b)

Achievement during 7th Plan

(million ha.)

Sl. No.	Item	7th Plan target	Achievement 1985-86	Achievement 1986-87	Target 1987-88	Antpd. achievement 1987-88	% of col. 4+5+7 ×100 / col. 3
(1)	(2)	(3)	(4)	(6)	(6)	(7)	(8)
1.	Field channels	6.81	0.68	0.72	1.27	0.60	10.21
2.	Land levelling	1.82	0.12	0.077	0.15	0.077	15.05
3.	Warabandi	8.04	0.71	0.95	1.68	0.87	12.48

6.14. A seminar was held during the year to review the working of command area development projects based upon studies of such projects. Its major recommendations are :

(1) removal of uncertainty in the supply of irrigation water be treated as the core element in the CAD Programme;

(2) there should be unified control of Irrigation water management and recommends that management of irrigation system right from headwork to farm gate should vest with CADA;

(3) keeping in view the crucial importance of modernisation and maintenance, adequate funds be mobilised for modernisation to make good system inadequacies and for meeting maintenance requirements;

(4) participation of farmers in irrigation management is more widely recognised than practised. With active participation of beneficiaries, effectiveness of the Programme would improve and maintenance of the irrigation at micro level better achieved. There should be intensification of efforts to secure active participation of irrigators in the CAD programme;

(5) closer interaction of agricultural research and extension services with CADAs so as to ensure adoption of suitable cropping pattern and better crop water management practices;

(6) Promotion of conjunctive use of surface and ground water not only enhances water availability but also leads to avoidance of deleterious effects such as water-logging and salinity problems or excessive fall in the water table noticed when development of surface water or ground water projects are taken up in isolation. In keeping with the National Water Policy, conjunctive use of water be made an integral part of all projects;

(7) to alleviate, if not eliminate, problems of water-logging and ?salinity, drainage works be given high priority in the existing projects and should form an integral part of all new projects;

(8) lining o channel be taken up only to the extent needed, based on soil characteristics and cost effectiveness;

(9) land levelling is capital intensive and expensive to implement ; its benefits are marginal. When technical consideration require land shaping, project authorities should involve specialists of high calibre in drawing up plans and ensure that such wors are taken up only where benefits substantially exceed the costs; and

(10) irrigation water rates, in most cases, do not cover even maintenance charges and do not convey the scarcity value of water. Water charges are often substantially higher in the case of ground water, thereby rendering conjunctive use less attractive to the farmer. Water rates for surface water and ground water need to be rationalised and should be adequate to cover the annual maintenance and operation charges as also a part of the fixed cost. It should be the endeavour to reach this ideal over a period of time while ensuring assured and timely supplies of irrigation water.

The Ministry of Water Resources is processing these recommendations for action.

Flood Control

6.15 During the year 1987-88 sizeable damages were caused b yheavy floods in the states of Bihar, U.P., West Bengal, Assam etc. The flood problems were also created in the states of Andhra Pradesh, Haryana and Jammu & Kashmir. In view of the heavy relief expenditure incurred in chronically flood affected areas from year to year, priority is being given for completion of on going works states have been requested to prepare comprehensive master plans for flood control works so that the projects taken up fit into the overall master plan keeping in view the recommendations of the Rastriya Barh Ayog.

Keeping in view the special problems of the states of Assam and eastern region, higher central sector outlays are made available for flood control work in the Brahmaputra Valley and for the Brahmaputra Board for preparation of master plan. In addition, assistance is given in the central sector for flood assistance to Orissa for the Rengali Dam project and also to Kerala for anti sea erosion works.

A close network spread over the country for timely flood forecasting is set up and is being strengthened. The flood forecasting methods are being constantly reviewed and further improvements are being carried out to make flood forecasts more accurate, effective and timely. The outlays and expenditure during the Seventh Plan period are shown in the following Table 6.4.

TABLE 6.4

Plan outlays—7th Plan—85-86, 86-87 and 87-88

(Rs. crores)

Sr No.	Item	7th Plan outlay	85-86 actual expendr.	86-87 actual expendr.	1987-88 Plan prov.	1987-88 Ant. exp.	Total	% of col. 8 to Col. 3
1	2	3	4	5	6	7	8	9
1.	Flood Control	947.39	167.10	179.49	188.45	183.99	530.58	56.90

Central and Centrally Sponsored Schemes

6.16 Details of plan outlay for these schemes are given in Annexure 6-4. Some of the important central schemes are as under :—

(a) National Institute of Hydrology

The National Institute of Hydrology (NIH) was set up in Roorkee, U.P. in December 1979 by the Govt. of India as a central sector schemes, as a nucleus for the study and research in hydrology in the country with the main objective to undertake, aid, promote and coordinate systematic and scientific studies in hydrology and to cooperate and collaborate with other national and international organisations in the field of hydrology. The activities of the NIH at national level broadly include computerisation, laboratory and field oriented studies and research, standardisation and systemisation of hydrological methods to develop, cooperate and interact with the states for hydrological problems, dissemination of results of research through various reports, organisation of training seminar, workshops and courses to develop consultancy capabilities for taking up sponsored research project. The activities during the year 1987-88 are carried out under the overall work plan envisaged for the Seventh Five Year Plan period. Total outlay approved for Seventh Plan for NIH is Rs. 4.50 crores and the outlay provided for 1988-89 is Rs. 0.90 crores.

Targets for the year 1988-89

During the year 1988-89 the Institute hopes to develop further infrastructural facilities by construction of laboratory sheds in the regional centres and procurement of equipment for instrumentation of representative basins. It is proposed to further strengthen NIH to achieve the planned growth of laboratories and computer centres.

(b) National Water Development Agency

With a view to optimally utilise the available water resources of the country by storage and inter-basin transfer from surplus to deficit and drought prone areas, a national perspective for water resources development has been pepared by the Ministry of Water Resources. It has two components, viz., The Himalayan Rivers Development and The Peninsular Rivers Development. The national perspective envisages an additonal benefit of 25 million ha. from surface water and 10 million ha. by increased use of ground water which is expected to raise the ultimate irrigation potential from 113 million ha. to 148 million ha. NWDA was formed in the year 1982 under the MOWR as a central sector scheme to take up surveys, investigations and studies for establishing the feasibility of the peninsular rivers development component. Programme for the Seventh Plan is to complete necessary studies of the basin rivers and links required for establishing the feasibility of 5 water transfer links and for that purpose, the NWDA has to complete collection of data of 94 basins, water balance studies of 80 basins and diversion points, capacity studies of 10 storages and toposheet studies of 7 links. Against this programme, the Agency has completed during the first two years of the Seventh Plan, the collection of data of 54 basins, water balance of 30 basins and diversion points and capacity studies of 3 storages. For the year 1987-88 complete collection of data for 28 basins, water balance studies of 20 basins and diversion points, capacity studies of 2 storages and toposheet studies of 2 links was envisaged. It is expected to complete the targets as envisaged. For the year 1988-89 it is proposed to complete works on collection of data for 7 basins, water balance study of 20 basins and diversion points, capacity studies of 3 storages, toposheet studies of 3 links and preliminary feasibility reports of 2 water transfer links. Against the total outlay of Rs. 11 crores for Seventh

Plan, the outlay of Rs. 2.40 crores has been provided for 1988-89.

(c) *Central Water Power Research Station (CWPRS)*

CWPRS is a premier research station in the country carrying out research in the area of water resources covering all aspects of water use, i.e. hydrology, irrigation and water supply, hydro electricity, cooling water for thermal and atomic power plants, coastal and inland water transfer, preservation of environment etc. Research station is aided by the United Nations Development Programme (UNDP|UNESCO) and by providing assistance in the following disciplines :

(i) Applied earth sciences division.

(ii) Hydro mechanics division.

(iii) Hydraulic research centre.

(iv) Water and power information system.

The research station has been able to stick to the targets fixed both for UNDP aided as well as other research works, In the Seventh Plan, the institute idetnified thrust areas such as sediment exclusion and disposal, mathematical modelling of fluvial and ocean processes, ship hydrodynamics and earthquake response of water rfsources structures, river training and automated operation of canal system etc. Against the approved outlay of Rs. 8 crores for the 7th Plan, an outlay of Rs. 7 crores has been provided for 1988-89.

(d) *Central Soil and Material Research Station (CSMRS)*

CSMRS under the Ministry of Water Resources is a central sector scheme dealing with field exploration laboratory investigations basic and applied research in the realm of technical and materials construction relevant to river valley projects over the entire country and abroad. It is expected that the target fixed for the year 1987-88 for investigations, testing and other research problems would be achieved. Targets on more or less same lines have been fixed for the year 1986-89 also. The CSMRS has been able to install the various equipments received from UNDP aid. Against the approved outlay of Rs. 5.0 crores for the Seventh Plan, an outlay of Rs. 1.50 crores has been provided for 1988-89.

Annexure—6.1

Outlay in respect of Major and Medium Irrigation, Minor Irrigation, Command Area Development and Flood Control Programme for the Annual Plan 1988-89.

(Rs. Crores)

Sl No	States/UTs	Major & Medium Irrigation	Minor Irrigation	C.A.D.	Flood Control	Total
1	2	3	4	5	6	7
1	Andhra Pradesh	257.00	31.00	7.00	5.00	300.00
2	Arunachal Pradesh	0.18	4.60	0.00	0.45	5.23
3	Assam	26.79	36.88	2.85	7.50	74.02
4.	Bihar	322.00	72.00	6.50	37.00	437.50
5.	Goa	16.00	2.00	1.20	0.18	19.38
6.	Gujarat	304.70	28.00	12.60	2.00	347.30
7.	Haryana	69.90	2.28	17.08	13.00	102.26
8.	Himachal Pradesh	2.25	14.06	0.50	0.80	17.61
9.	Jammu & Kashmir	16.00	12.39	0.92	5.96	35.27
10.	Karnataka	143.70	35.83	16.90	0.75	197.18
11.	Kerala	55.50	13.50	6.00	4.50	9.50
12.	Madhya Pradesh	294.09	78.59	23.00	0.84	396.52
13.	Maharashtra	343.32	117.07	67.81	0.25	528.45
14.	Manipur	16.50	1.87	0.45	1.40	20.22
15.	Meghalaya	0.30	2.30	0.20	0.30	3.10
16.	Mizoram	0.20	1.61	0.00	0.05	1.86
17.	Nagaland	0.00	2.74	0.00	0.00	2.74
18	Orissa	153.03	33.10	3.00	4.00	193.13
19.	Punjab	57.47	7.85	4.00	12.00	81.32
20.	Rajasthan	122.12	13.01	15.30	1.97	152.40
21.	Sikkim	0.00	1.90	0.00	0.20	2.10
22.	Tamil Nadu	39.27	27.11	8.37	4.43	79.18
23.	Tripura	4.80	4.51	0.05	1.80	11.16
24.	Uttar Pradesh	272.54	116.99	25.50	24.09	439.12
25.	West Bengal	47.55	25.80	1.55	25.45	100.35
26.	A. & N. Islands	0.00	0.42	0.00	0.00	0.42
27.	Chandigarh	0.00	0.20	0.00	0.00	0.20
28.	Dadar & Nagar Haveli	0.07	0.35	0.01	0.00	0.43
29.	Daman & Diu	0.85	0.01	0.00	0.10	0.96
30.	Delhi	0.00	0.93	0.00	8.83	9.76
31.	Lakshadweep	0.00	0.00	0.00	0.30	0.30
32.	Pondicherry	0.37	1.44	0.00	0.57	2.38
	Total	2566.50	690.34	220.79	163.72	8641.35
	Central Sector	16.25	41.00	125.00	35.55@	217.80@
	Grand Total	2582.75	781.84	345.79	199.27@	3859.15@

@Includes Rs. 0.50 crores transferred to Min. of S&T.

Annexure—6.2

Anticipated expenditure in respect of Major and Medium Irrigation, Minor Irrigation Command Area Development and Flood Control Programme for the Annual Plan 1987-88

(Rs. Crores)

Sl. No.	States/UTs	Major & Medium Irrigation	Minor Irrigation	C.A.D.	Flood Control	Total
1	2	3	4	5	6	7
1.	Andhra Pradesh	223.47	23.95	5.25	4.50	257.17
2.	Arunachal Pradesh	0.14	5.15	0.00	0.50	5.79
3.	Assam	26.10	34.88	2.15	7.00	70.13
4.	Bihar	314.22	58.00	5.50	43.00	420.72
5.	Goa	13.15	1.76	0.89	0.09	15.89
6.	Gujarat	180.20	17.70	7.50	0.00	205.40
7.	Haryana	100.00	1.90	16.00	7.00	124.90
8.	Himachal Pradesh	1.70	11.74	0.50	0.75	14.69
9.	Jammu & Kashmir	15.49	12.31	1.00	4.95	33.75
10.	Karnataka	93.70	33.10	14.26	0.61	141.67
11.	Kerala	51.00	5.02	2.51	4.07	62.60
12.	Madhya Pradesh	264.61	75.09	22.91	0.90	363.51
13.	Maharashtra	270.32	93.06	57.42	0.13	420.93
14.	Manipur	15.89	1.80	0.40	1.40	19.49
15.	Meghalaya	0.05	2.00	0.25	0.00	2.30
16.	Mizoram	0.05	1.12	0.00	0.10	1.27
17.	Nagaland	0.00	2.51	0.00	0.00	2.51
18.	Orissa	152.70	47.82	2.66	4.00	207.18
19.	Punjab	53.00	6.15	6.00	7.66	72.81
20.	Rajasthan	110.54	9.52	13.18	1.94	135.18
21.	Sikkim	0.00	1.80	0.00	0.20	2.00
22.	Tamil Nadu	39.76	23.00	7.26	2.25	72.27
23.	Tripura	4.65	4.20	0.05	1.80	10.70
24.	Uttar Pradesh	234.49	113.21	25.30	22.14	395.14
25.	West Bengal	54.71	17.50	1.88	25.26	99.35
26.	A. & N. Islands	0.00	0.42	0.00	0.00	0.42
27.	Chandigarh	0.00	0.26	0.00	0.00	0.26
28.	Dadra & Nagar Haveli	0.00	0.42	0.00	0.01	0.43
29.	Delhi	0.00	1.00	0.00	9.00	10.00
30.	Lakshadweep	0.00	0.00	0.00	0.20	0.20
31.	Pondicherry	0.40	1.60	0.00	0.61	2.61
32.	Daman & Diu	0.70	0.00	0.00	0.12	0.82
	Total	**2221.04**	**607.99**	**192.87**	**150.19**	**3172.09**
	Central Sector	9.53	29.28	92.40	31.97	163.18
	Grand Total	**2230.57**	**637.27**	**285.27**	**182.16**	**3335.27**

Expenditure in respect of Major and Medium Irrigation, Minor Irrigation, Command Area Development and Flood Control Programme for the Annual Plan 1986-87

(Rs. Crores)

Sl. No.	States/UTs	Major & Medium Irrigation	Minor Irrigation	C. A. D.	Flood Control	Total
1	2	3	4	5	6	7
1.	Andhra Pradesh	262.14	31.67	7.16	5.72	306.69
2.	Arunachal Pradesh	0.22	4.46		0.31	4.99
3.	Assam	25.62	33.32	1.20	6.45	66.59
4.	Bihar	266.88	56.09	6.33	37.46	366.76
5.	Goa	10.57	1.10	1.30	0.13	13.80
6.	Gujarat	163.14	19.90	9.50	2.26	194.80
7.	Haryana	116.12	1.34	25.39	10.89	153.74
8.	Himachal Pradesh	1.57	7.69	0.31	0.39	9.96
9.	Jammu & Kashmir	14.53	10.08	1.01	5.14	30.76
10.	Karnataka	105.08	36.23	12.83	0.56	154.70
11.	Kerala	52.75	9.17	2.00	5.12	69.04
12.	Madhaya Pradesh	236.41	76.38	22.30	1.07	336.16
13.	Maharashtra	304.25	64.64	47.69	0.15	416.73
14.	Manipur	11.02	1.58	0.44	1.13	14.17
15.	Meghalaya	0.02	1.76		0.20	1.98
16.	Mizoram	0.01	1.00		0.22	1.23
17.	Nagaland		2.70			2.70
18.	Orissa	106.74	25.24	2.96	3.36	138.30
19.	Punjab	47.16	5.77	9.00	10.25	72.18
20.	Rajasthan	101.83	9.99	14.03	2.50	128.35
21.	Sikkim		1.83		0.23	2.06
22.	Tamil Nadu	41.75	22.44	5.78	2.39	72.36
23.	Tripura	4.58	3.99	0.10	1.30	9.97
24.	Uttar Pradesh	232.19	111.00	21.48	21.54	386.21
25.	West Bengal	51.82	11.70	0.63	18.65	82.80
26.	A. & N. Islands		0.37			0.37
27.	Chandigarh		0.22			0.22
28.	Dadar & Nagar Haveli	0.60	0.27			0.87
29.	Delhi		0.97		9.11	10.08
30.	Lakshadweep				0.20	0.20
31.	Pondicherry	0.25	1.02		0.50	1.77
	Total	2157.25	554.62	191.44	147.23	3050.54
	Central Sector	11.33	33.40	94.10	32.26	171.09
	Grand Total	2168.58	588.02	285.54	179.49	3221.63

Annexure No. 6.4

Details of Plan outlays for Central Sector

(Rs. in crores)

Name of Scheme 1	Actual Expenditure (1985-86) 2	Actual Expenditure (1986-87) 3	Anticipated Expenditure (1987-88) 4	Outlay for (1988-89) 5	Remarks 6
A. Major and Medium Irrigation					
1. Central Water Commission	1.42	2.16	2.48 (2.24)	3.2	
2. Central Water and Power Research Station . . .	3.91	3.89	1.16 (1.79)	7.00@	@ This includes national provision of Rs. 4.29 crores for aid materials from UNDP rebuirement.
3. National Institute of Hydrology, Roorkee . . .	0.65	0.75	0.80 (0.79)	0.90	
4. Sone River Commission, Patna	0.6167	0.8386	0.6555 (0.82)	0.20	
5. Central Soils and Materials Research Station . . .	0.3783	0.8397	1.2136 (1.22)	1.50	
6. Grants in Aids to Autonomous bodies for research connected with River Valley Projects. .	0.3494	0.5541	0.78 (0.90)	1.00	
7. National Water Development Agency.	1.98	2.30	(2.44) (2.29)	2.40	
Sub-Total (A):-	9.58*	11.3324	9.5291 (10.14)	16.25	* This includes 0.07 crores for sectt. economic services.
B. Flood Control					
8. Brahmaputra Board . .	8.00	7.90	4.85 (7.98)	7.00	
9. Flood Control Works for Brahmputra Valley . . .	15.00	13.50	21.00 (21.00)	21.00	
10. Assistance to Rengali Dam in Orissa	4.00	3.21	1.02 (0.15)	0.50	
11. Other Programmes. . .	3.50/8	7.6459	5.10 (4.68)	6.55	
Sub-Total (B):-	30.5018	32.2559	31.97 (33.81)	35.05	
C. Minor Irrigation					
12. Central Ground Water Board	8.78	26.95	21.22 (29.93)	30.00	
13. Other Programmes . .	4.05	6.45	8.06 (10.01)	11.00	
Sub-Total (C):-	12.83	33.40	29.28 (39.94)	41.00	
D. C.A.D. Programme . .	69.81	94.10	92.40 (90.00)	125.00	
Grand Total : (A+B+C+D) .	122.73@	71.0883	163.1791 (173.8)	217.30	@ This includes 0.07 crores for sectt. economic services.

Note:-(1) Figures indicated within brackets above are the revised estimates for 1987-88.

(2) Under major-medium Irrigation, the sum of Rs. 10.14 crores is inclusive of Rs. 0.09 crores for secretariat services.

Schemewise Details of Plan Outlay for Irrigation—States and Union Territories

(Rs. in crores)

Sl. No.	Project / Scheme	1985-86 (Actual) Expenditure	1986-87 Actual Expendtiure	1987-88 Anticipated Expenditure	1988-89 Approved Outlay
	ANDHRA PRADESH				
	Major and Medium Irrigation				
	A. Earmarked Projects/Schemes				
1.	Nagarjunesagar	20.00	18.27	23.23	15.00
2.	Sriramsagar Stage I	10.00	36.77	35.00	60.00
3.	Godavari Barrage Project	1.90	2.00	18.00	10.00
4.	Vamsadhara Stage I	2.65	2.50	2.10	2.50
5.	Tungabhadra HLD Stage II	5.80	5.21	5.00	7.50
6.	Veleru	*	24.00	29.00	23.00
7.	Somosila	6.06	*	18.00	10.00
8.	Medium Schemes	19.15	19.71	13.00	22.36
9.	Srisailam RBC	*	*	6.29	29.00
10.	Singuru Project	*	*	7.00	20.00
11.	Jurala Project	*	*	13.00	*
12.	Modernisation Schemes	*	*	0.25	2.50
13.	Ex-post-facto evaluation of irrigation schemes		-		0.20
	Total-A	66.56	108.46	169.87	202.06
	B. Non-earmarked Projects/Schemes				
(i)	Major Projects	125.83	142.40	43.35	47.60
(ii)	Medium Projects	3.81	0.82	1.16	1.00
(iii)	Other schemes including survey investigaton/research etc.	7.76	10.46	9.09	6.34
	Total—B	137.50	153.68	53.60	54.94
	Grand Total	204.06	262.14	223.47	257.00
	ASSAM				
	A. Earmarked Projects/Schemes				
1.	Dhansiri	7.28	8.73	8.30	12.00
2.	Medium Schemes.	9.28	11.36	11.53	12.00
3.	Evaluation Studies				0.10
	Total-A	16.56	20.09	19.83	24.10
	B. Non-Earmarked Projects/Schemes				
1.	Major Projects	2.04	2.73	3.00	2.00
2.	Medium Projects	0.43	0.42	0.66	0.30
3.	Other Schemes including survey investigation etc.	2.14	2.38	2.62	0.39
	Total-B	4.61	5.53	6.28	2.69
	Grand Total	21.17	25.62	26.11	26.79

* The Project not Earmarked during the year.

Annexure 6.5 (Contd.)

(Rs. in crores)

Sl. No.	Project/Scheme	1985-86 (Actual) Expenditure	1986-87 Actual Expenditure	1987-88 Anticipated Expenditure	1988-89 Approved Outaly
	BIHAR				
	A. Earmarked Projects/Schemes				
1.	Subarmarekha	52.60	81.62	75.50	82.00
2.	Bagmati			3.00	3.00
3.	W. Kosi Canal	21.15	19.12	38.00	24.00
4.	North Koel	40.88	44.95	45.00	40.00
5.	Durgawati			7.00	10.00
6.	Barnar			4.00	2.00
7.	Upper Kiul	5.50	6.50	8.00	2.00
8.	Konar Diversion			8.00	8.00
9.	Tilaya Diversion			1.00	2.00
10.	Bateswarsthan Ph. I			3.00	3.00
11.	Bansagar (Dam share)	8.29	6.22	8.50	10.75
12.	Ajoy Barrage at Sikatia			10.00	9.00
13.	Ongoing Medium Schemes (18 Nos.)		43.03	44.53	45.20
14.	Gandak Ph II]	52.98		5.00	8.00
15.	Kosi E. Canal Ph. II			2.00	4.00
16.	New Medium Schemes (10 Nos)			30.00	30.50
17.	Postfaecto Evaluation Studiers			0.30	0.30
	Total-A	181.40	201.45	293.33	283.75
	B. Non-Earmnrked Proects/Schemes				
1.	Major Projects	25.48	40.00	10.00	20.00
2.	Medlum Projects	0.38	5.00	2.00	5.00
4.	Other Schemes ineluding-Survey investigation etcs.	13.07	20.45	8.89	13.25
	Total-B	38.93	65.45	20.89	38.25
	Grand Total	220.33	266.90	314.22	322.00
	GOA				
	A. Earmarked Projects/Schemes				
1.	Salauli			4.40	7.70
2.	Tillari			3.89	7.00
4.	Anjunem			1.30	1.10
	Total : A			9.59	15.80
	B. Non Earmarked Projects/Schemcs				
I.	Major Projects			—	—
II.	Medium Project			3.56	—
III.	Other schemes iueluding invertigation, Research and survey etc.				0.20
	Total : B			3.56	0.20
	Grand Total (A+B)			13.15	16.00

Annexure 6.5 (Contd.)

(Rs. in crores)

Name of Scheme/Projects	1985-86 Actual Expdr.	1986-87 Actual Expd.	1987-88 Antcpd. Expdr.	1988-89 Approved. Outlay
GUJARAT				
A. Earmarked Project/Schemes				
1. Karjar	18.61	18.37	13.56	16.00
2. Damanganga	5.68	5.92	7.21	11.00
3. Mod. of Ukai Kakrapar	5.34	4.47	3.34	5.70
4. Saurashtra Coastal Dev. Project.	7.42	8.36	6.64	7.50
5. Machhu-II	*	*	6.21	6.40
6. Panam	2.74	2.51	2.00	3.30
7. Watrak	3.76	3.94	2.65	3.15
8. Sukhi	7.23	6.5	5.10	6.55
9. Sipu	4.70	4.87	7.45	8.25
10. Sardar Sarovor Project	32.93	31.85	59.00	145.00
11. Sabarmati	2.96	2.53	3.74	4.95
12. Mahi Bajaj Sagar	*	0.08	—	0.05
13. Medim Projects	45.15	55.90	57.64	101.95
14. Evaluation Studies	Nil	Nil	Nil	0.10
Total:	136.56	145.30	174.54	292.90
B. Non-Earmarked Projects/Schemes				
I. Major Projects	—	5.28	—	0.75
II. Medium Projects	3.17	0.30	—	—
III. Other Schemes including Survey Investigation and Research	11.81	12.26	5.66	11.05
	14.88	17.84	5.66	11.80
Grand-Total :	151.54	163.14	180.20	304.70
HARYANA				
A. Earmarked Project/Schemes				
1. Mod. of Existing Channel in Haryana	21.08	22.51	13.73	20.00
2. JLN Lift Irrigation Scheme	4.57	8.50	4.50	8.00
3. SYL Main Canal (including distribution)	80.75	68.77	71.40	34.50*
4. Loharu Lift Irrigation	00.46	2.01	1.50	1.00
5. Evaluation Studies	—	—	—	0.10
Total: A	106.85	101.79	91.13	63.60
B. Non Earmarked Project/Schemes				
I. Major Projects	3.22	4.56	3.40	3.10
II. Medium Projects	0.27	8.00	4.07	0.90
III. Other Scheme including survey, Investigation and Research etc.	1.95	1.77	2.40	2.30
Total : B—	5.44	14.33	9.87	6.30
Grand Total	112.29	116.12	100.00	69.90

*Included under Non-Earmarked Projects.

**SYL Main Canal only.

Annexure 6.5 (*contd.*)

(Rs. in crores)

Sl. No.	Name of Scheme	1985–86 Actual Expenditure	1986–87 Actual Expenditure	1987–88 Approved Outlay	1988–89 Approved Outlay
	HIMACHAL PRADESH				
	Major and Medium Irrigation				
	A. Earmarked Project/Schemes				
	B. Non-Earmarked Project/Schemes				
	(i) Major Projects	0.40	0.41	0.50	0.65
	(ii) Medium Projects	1.06	1.15	1.17	1.50
	(iii) Other schemes insluding survey, & investigation Research etc.	0.01	0.01	0.03	0.10
	Total-B	1.47	1.57	1.70	2.25
	Grand Total	1.47	1.57	1.70	2.25
	JAMMU & KASHMIR				
	Major and Mediam Irrigation				
	A. Earmarked Project/Schemes				
1.	Ravi Canal	5.65	5.82	5.52	6.00
2.	Medium Projects	4.03	*	*	2.30
3.	Ex-post-facto evaluation of completed projects	*	*	0.05	0.05
	Total—A	9.68	5.82	5.57	8.35
	B. Non-Earmarked Project/Schemes				
	(i) Major Projects	0.34	1.20	0.68	0.68
	(ii) Medium Schemes	0.64	6.70	8.38	5.90
	(iii) Other Schemes including survey & investigation research etc.	3.19	0.81	0.86	1.07
	Total—B	4.17	8.06	9.92	7.65
	Grand Total	13.85	14.53	15.49	16.00
	KARNATAKA				
	Major and Medium Irrigation				
	A. Earmarked Project/Schemes				
1.	Upper Krishna Project Stage I	46.02	53.13	42.52	75.00
1.	Ghataprabha Statge III	9.33	9.87	9.50	15.00
3.	Malaprabha	12.33	15.01	14.50	20.00
4.	Medium Schemes	*	7.04	6.00	15.75
5.	Tunga Bhadra Lio & Dam	*	*	6.00	5.00
6.	Tunga Bhadra RBHLC	*	*	0.70	1.50
7.	Bhadra Project	*	*	1.00	1.50
8.	Karaja	*	*	5.30	4.00
9.	Bennithora	*	*	2.10	*
10.	Modernisation Schemes	*	*	2.10	3.00
11.	Ex-post facto evaluation of completed Projects				0.10
	Total—A	67.68	85.05	89.72	140.35

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*The Project "not Earmarked during the year".

*The Procct not Earmrked during the year

Annexure 6.5 (contd.)

(Rs. Crore)

Sl. No.	Name of Project/Schemes	1985-86 Actual Expenditure	1986-87 Actual Expenditure	1987-88 Anticipated Expenditure	1988-89 Approved Outlay
B.	**Non-Earmarked Project/Schemes**				
(i)	Major Projects	10.03	15.84	1.34	1.20
(ii)	Medium Projects	0.06	2.60	1.00	0.50
(iii)	Other Schemes including survey & Investigations etc.	9.19	1.59	1.64	1.15
	Total—B	19.28	20.03	3.98	2.85
	Grand Total	86.96	105.08	93.70	143.70
	KERALA				
	Major and Medium Irrigation				
A.	**Earmarked Project/Schemes**				
1.	Kallade	33.11	34.09	36.50	35.00
2.	Periyar Valley	3.50	2.25	2.20	2.70
3.	Kuttiadi	2.95	0.50	0.30	1.00
4.	Pazhassi	5.23	2.35	1.50	2.00
5.	Pamba	*	*	0.30	0.90
6.	Chiturpuzha	*	*	1.50	*
7.	Kanhirapuzha	*	*	2.00	2.00
8.	Muvattupuzha	*	*	2.10	3.50
9.	Chimoni	*	*	3.03	3.00
10.	Karapuzha (Medium)	*	*	0.50	1.00
11.	Ex-post-factor Mevaluation of completed Projects	*	*	0.10	0.10
	Total—A	44.79	39.19	50.08	51.20
B.	**Non-Earmarked Project/Schemes**				
(i)	Major Projects	10.79	10.01	0.40	1.60
(ii)	Medium Schemes	1.98	1.79		0.75
(iii)	Other schemes including survey & investigation .escarch etc.	2.07	1.76	0.52	1.95
	Total—B	14.80	13.56	0.92	4.30
	Grand Total	59.59	52.75	51.00	55.50
	MADHYA PRADESH				
	Major and Medium Irrigation				
A.	**Earmarked (/Projects/Schemes**				
1.	Hasdeo Bango	31.06	35.48	42.44	46.40
2.	Mahanadi Reservoir Project	27.92	25.07	29.50	43.00
3.	Arpa (Investigation)	0.27	0.45	0.10	0.10
4.	Hydro-Meteorology	0.63	1.50	1.50	1.50
5.	Externally Aided M.P. Medium Irrigation Project	61.64	66.11	83.01	76.10
					9.50
6.	Rajghat Unit I	7.00	8.00	8.50	6.00
	Unit II		5.01	4.50	22.50
7.	Bansagar Unit I	5.71	6.24	12.05	10.00
	Unit-II		5.03	8.30	8.00

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*The project not Earmarked during the year.

Annexure 6.5 (*contd.*)

(Rs. Crore)

Sl. No.	Name of Project/Scheme	1985-86 Actuals Expenditure	1986-87 Actual Expenditure	1987-88 Anticipated Expenditure	1988-89 Approved Outlay
8.	Bargi Unit-I		21.44	9.00	21.00
	Unit-II		8.93	12.60	7.00
9.	Upper Wainganga	6.00	9.66	9.90	1.10
10.	Pairi		0.76	0.81	0.80
11.	Halali		0.60	0.63	1.00
12.	Sindh Ph-I		1.24	0.84	0.50
13.	Rangwan-HLC		0.23	0.22	1.50
14.	Kodar		1.17	0.99	2.00
15.	Jonk		1.61	1.26	1.20
16.	Thanwar		2.69	1.80	5.00
17.	Bariarpur L.F.C.		3.75	2.25	1.00
18.	Uroil		0.88	0.90	10.12
19.	Pre-Sixth Plan medium Schemes	12.21	10.90	8.73	0.10
20.	Evaluation Studies				
	Total—A	**152.44**	**216.75**	**239.83**	**280.42**
	B. Non-Earmarked Projects/Schemes				
1.	Major Projects	45.69	10.50	14.33	8.55
2.	Medium Projects	1.86	3.20	3.50	1.27
3.	Other Schemes including- Survey investigation etc.	4.51		6.95	3.85
	Total—B	**52.06**	**19.66**	**24.78**	**13.67**
	Grand Total	**204.50**	**236.41**	**264.61**	**294.09**
	MAHARASHTRA				
	A. Earmarked Projects/Schemes.				
1.	Jayakwadi stage-I & II (excluding Majalgaon) and Jayakwadi Stage-II (Majalgain and remaining works of Panthan-MICPII)—MCIP—III	22.50	44.53	37.87	45.00
2.	Warna	11.15	11.61	10.90	13.70
3.	Krishna	8.64	7.67	6.99	12.00
4.	Kukadi	15.95	13.79	10.92	19.00
5.	Bhima	21.45	12.25	11.88	21.70
6.	Upper Penganga	14.39	14.20	11.22	16.00
7.	Upper Wardha	15.13	12.91	10.39	15.00
8.	Upper Tapi (I&II)	3.76	3.08	3.50	4.70
9.	Khadakwasla	5.93	5.38	4.29	7.00
10.	Pench (Irrigation)	10.88	11.07	7.53	10.50
11.	Vishnupuri	6.58	7.50	6.99	11.00
12.	Dudhganga	5.65	6.19	5.59	7.5
13.	Kalisarar	0.90	0.71	0.77	0.50
14.	Lower Thirna	4.27	5.03	5.91	10.00
15.	Bhatse	1.83	2.10	2.72	5.00
16.	Tillari	*	.	0.77	1.60
17.	Surya	5.71	4.93	36.07	8.0
18.	Medium Projects	20.50	32.10		68.23
19.	Evaluation Studies	Nil	Nil	Nil	0.20
	Total 'A'	**181.22**	**195.05**	**180.81**	**275.93**

(*Annexure* 6.5 (*Contd.*)

(Rs. Crores).

Sl. No. Name of Project/Scheme	1985-86 Actual Expenditure	1986-87 Actual Expenditure	1987-88 Anticipated Expenditure	1988-89 Aprproved Outlay
B. Non-Earmarked Projects/Schemes				
I. Major Projects	17.27	13.30	21.74	22.50
II. Medium Projects	21.90	11.93	16.31	8.46
III. Other Schemes including survey, Investigation and Research	32.93	51.74*	41.46	36.43
Total 'B'—	**72.10**	**76.37**	**79.51**	**67.39**
Grand Total	**253.32**	**271.42**	**270.32**	**343.38**
MANIPUR				
A. Earmarked Project /Schemes				
1. Thoubal	**3.78**	**5.10**	**5.25**	**9.00**
2. Singda	**1.28**	**1.30**	**2.50**	**2.50**
3. Loktak Lift Irrigations	**2.30**	**0.99**	**2.87**	**0.75**
4. Imphal Barrage	**0.56**	**0.35**	**0.69**	**0.25**
5. Seknai	**1.20**	**0.94**	**0.82**	**0.30**
6. Postfacto Evaluation Studies			**0.05**	**0.02**
Total—A	**9.12**	**8.68**	**12.18**	**12.82**
B. Non-Earmarked Projects/Schemes				
(i) Major Projects	**1.62**	**1.93**	**3.21**	**3.08**
(ii) Medium Projects	**0.25**	**0.05**		
(iii) Other Schemes including—Survey, & Investigation-research etc.	**0.58**	**0.36**	**0.50**	**0.60**
Total—B	**2.45**	**2.34**	**3.71**	**3.68**
Grand Total	**11.57**	**21.92**	**15.89**	**16.50**
ORISSA				
A. Earmarked Projects/Schemes				
1. Upper Indravati Dam—Irrigation	0.97	4.86	10.00	13.00
2. Mahanadi Birupa Barrage	2.57	5.94	11.00	12.00
2. Mahanadi Birupa Barrage	18.07	23.22	20.00	14.00
3. Subarnarekha	10.01	16.63	35.95	36.00
4. Orissa MIP II	33.59	31.33	34.49	40.00
5. Rangali Dam	1.96	0.73	1.60	2.00
—Irrigation	6.89	8.51	14.00	15.00
6. Upper Kolab—Dam	8.95	3.54	2.50	0.25
—Irrigation	2.04	4.02	12.50	9.50
7. Sunder		1.00	1.00	0.70
8. Ong			1.10	1.10
9. Evaluation Studies			0.15	0.10
TOTAL—A	**85.05**	**99.78**	**144.29**	**143.65**

(*Annexure* 6.5 (*Contd.*)

(Rs. Crores)

Sl. No. Name of Project/Scheme	1985-1986 Actual Expenditure	1986-87 Actual Expenditure	1987-88 Anticipated Expenditure	1988-89 Approved outlay
B. Non-Earmarked Projects Schemes				
(i) Major Projects	1.85	1.39	3.00	3.50
(ii) Medium Project	2.77	2.50	2.00	2.50
(iii) Other schemes including—survey & investigation—	2603	3.07	3.41	3.38
TOTAL—B	**6.65**	**6.96**	**8.41**	**9.38**
GRAND TOTAL	**91.70**	**106.74**	**152.70**	**153.03**
PUNJAB				
A. Earmarked Projects/Schemes				
1. Dholbha Dam	3.13	2.66	2.00	1.81
2. Lining of Channels (Phase I & II)	20.19	19.52	11.00	7.59
3. Satluj Yamuna Link				
(i) Main Canal	9.57	15.00	14.00	16.50
(ii) Disrtibution System	1.14	4.94	18.00	15.00
4. Extn. and Improvement of Shahmahar Canal	2.83	2.75	3.50	5.44
5. Evaluation Studies	..	..	..	0.10
Total—A	**36.86**	**44.87**	**48.50**	**46.44**
B. Non-Earmarked Projects/Schemes				
I. Major Projects	2.14	1.05	1.20	1.60
II. Medium Projects	0.66	0.40	0.50	3.40
III. Other Schemes including Investigation, Survey and Research	0.66	0.68	2.80	9.05
Total—B	**3.46**	**2.13**	**4.50**	**11.05**
Grand Total (A+B)	**40.32**	**47.00**	**53.00**	**57.47**
RAJASTHAN				
Major and Medium Irrigation				
A. Earmarked Projects/Schemes				
1. Mahi Bajaj Sagar Units I & II	17.00	17.51	20.00	20
2. Indira Gandhi Nahar Projects				
Stage (I)	7.60	7.45	55.00	60.00
Stage (II)	42.83	42.59		
3. Jakham	4.94	4.31	4.00	4.00
4. Okhla Barrage	*	..0.10	*	*
5. Narmada	0.18	0.17	0.15	0.70
6. Externally aided Schemes (US AID)	12.85	21.37	21.37	21.37
7. Bisalpur	*	*	2.45	2.45
8. Medium Projects	3.39	—*	*	*
9. Ex-post-facto evaluation of completed Projects				0.10
TOTAL—A	**88.89**	**93.50**	**102.97**	**108.62**

* The projects not Earmarked during the year.

Annexure 6.5 (Contd)

(Rs. Crores)

Sl. No.	Name of Project/Scheme	1985-86 Actual Expenditure	1986-87 Actual Expenditure	1987-88 Anticipated Expenditure	1988-89 Approved Outlay
B.	**Non-Earmarked Projects/Schemes**				
	(i) Major Projects	0.19	1.48	1.43	1.14
	(ii) Medium Schemes	0.38	1.55	0.40	0.70
	(iii) Other schemes including—survey & investigation—research etc.	9.51	5.30	5.74	7.86
	TOTAL—B	**10.08**	**8.33**	**7.57**	**9.70**
	GRAND TOTAL	**98.97**	**101.83**	**110.54**	**118.32**
	TAMIL NADU				
	Major and Medium Irrigation				
A.	**Earmarked Projects/Schemes**				
	1. Modernisation of periyar Vaigai System Stage II	14.27	15.71	13.13	15.70
	2. Medium Projects	7.85	13.23	12.12	13.84
	3. Ex-post-facto evaluation of completed Projects				0.05
	TOTAL—A	**22.12**	**28.94**	**25.25**	**29.59**
B.	**Non-Earmarked Projects/Schemes**				
	(i) Major Projects	2.94	2.09	2.18	0.21
	(ii) Medium Projects	4.54	1.90	0.87	0.35
	(iii) Other schemes including—survey & investigation—research etc.	17.12	11.05	11.46	9.12
	TOTAL—B	**24.66**	**15.04**	**14.51**	**9.68**
	GRAND TOTAL	**46.78**	**41.75**	**39.76**	**39.27**
	TRIPURA				
A.	**Earmarked Projects/Schemes**				
	1. Gumti	1.34	0.16	1.50	2.09
	2. Khowai	1.71	1.52	2.00	1.50
	3. Manu	0.60	1.76	0.50	0.50
	TOTAL—A	**3.65**	**3.44**	**4.00**	**4.00**
B.	**Non,Earmarked Projects/Schemes**				
	(i) Major Projects	0.00	0.00	0.00	
	(ii) Medium Projects	0.00	0.00	0.00	
	(iii) Other schemes including survey & investigation—research etc.	0.75	1.14	0.65	0.80
	TOTAL—B	**0.75**	**1.14**	**0.65**	**0.80**
	GRAND TOTAL	**4.40**	**4.58**	**4.65**	**4.80**

Annexure 6.5 (*Concld.*)

(Rs. crores)

Name of Schemes/Projects	1985-86 Actual Expdr.	1986-87 Actual Expdr.	1987-88 Antd. Expdr.	1988-89 Approved Outlay
UTTAR PRADESH				
A. Earmarked Projects/Schemes				
1. Mod. of upper Ganga Canal	10.19	19.05	25.00	50,00
2. Tehri Dam	5.29	9.97	7.00	
3. Lakwar Vyasi Dam	4.94	5.46	12.00	11.50
4. Gandak Canal Project	3.13	3.64	4.00	5.00
5. Sarda Sahayak	30.00	44.26	45.00	47.50*
6. Madhya Ganga Canal	20.15	19.89	20.00	20.00
7. Saryu Nahar Pariyojana	24.80	23.64	26.15	31.00
8. Okhla Barrage	2.85	2.18	NB	NB
9. Eastern Ganga Canal	15.00	16.98	15.00	20.50
10. Rajghat Dam	7.00	11.50	8.50	10.00
11. Shahjad Dam	3.70	6.05	4.25	1.60
12. Bansagar Dam	5.00	6.00	4.00	8.00
13. Increasing Capacity of Narainpur Pump Canal	3.48	2.99	4.00	5.00
14. Sone Pump Canal	2.62	2.97	2.75	1.34
15. Medium Schemes	10.02	18.27	14.95	16.10
16. Evaluation Studies	..	..	0.20	
Total—A	**160.00**	**192.68**	**193.30**	**227.5**
B. Non-Earmarked Projects/Schemes				
I. Major Projects	20.30	20.00	22.89	19.00
II. Medium Projects	..	..	..	..
III. Other Schemes including Survey, Investigation and Research etc.	18.46	19.51	18.30	26.00
Total—B	38.76	39.51	41.19	45.00
GRAND TOTAL (A)+B)	**198.76**	**232.19**	**234.49**	**272.54**
WEST BENGAL				
A. Earmarked Projects/Schemes				
1. Barrage & Irrigation System DVC	1.16	1.30	1.00	0.50
2. Kangsabati Res. Project	4.25	5.35	6.80	3.00
3. Teesta Barrage (1st substage)	29.23	40.24	45.00	36.0
4. Pre-sixth Plan medium schemes	1.61	1.88	2.5	2.00
5 Post-facto Evaluation studies			0.10	0 30
Total—A	36.25	48.77	55.45	41.80
B. Non-Earmarked Projects/Schemes				
(i) Major Projects	0.60	0.41	1.80	2.00
(ii) Medium Projects	0.46	0.40	0.70	0.75
(iii) Other schemes including survey & investigation—research etc.	1.90	2.24	1.86	3.00
TOTAL—B	2.96	3.05	4.36	5.75
GRAND TOTAL	39.21	51.82	59.81**	47.55

Note:**— Figure yet to be finalised by S.P. Division.

*Includes Rs. 20.00 crores for lining.

Annexure—6.6

Benefits from Major and Medium Irrigation

(000 ha.)

Sl. No.	States/Ut.	Ultimate Irrigation Potential	Benefit to end of 1984-85		Benefits during 1985-86		Benefits during 1986-87		Target for 1987-88		Antd.-Achievement 1987-88		Target for 1988-89	
			Potential	Utilisation	Potential	Utilisation	Potential	Utilisation	Potential	Utilisation	Potential	Utilisation	Potential	Utilisation
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Andhra Pradesh	5000.00	3242.00	3006.00	48.30	15.70	26.80	17.00	40.00	41.00	45.60	34.00	64.26	44.63
2.	Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.	Assam	970.00	101.00	57.00	7.20	5.40	16.00	10.00	15.00	23.00	18.50	11.70	22.00	17.00
4.	Bihar	6500.00	2879.00	2175.00	56.00	80.00	65.00	90.00	82.00	100.00	50.00	60.00	87.06	105.03
5.	Goa*	[illegible]0.00	0.00	0.00	1.20	0.40	1.30	0.70	2.00	0.96	2.00	1.20	2.00	1.50
6.	Gujarat	3000.00	1094.00	696.00	31.00	15.00	31.00	78.00	49.00	20.00	40.00	20.00	54.25	27.63
7.	Haryana	3000.00	1923.00	1745.00	21.00	15.00	30.00	19.00	53.00	28.00	53.00	20.00	51.63	15.32
8.	Himachal Pradesh	50.00	6.00	4.00	0.40	0.00	0.40	0.00	0.40	0.00	0.40	0.00	0.40	0.00
9.	Jammu & Kaskmir	250.00	137.00	114.00	0.90	3.00	1.10	4.00	3.00	4.00	1.80	1.10	16.10	10.37
10.	Karnataka	2500.00	1253.00	1112.00	66.00	120.00	52.00	42.00	60.00	50.00	54.00	43.00	44.00	36.00
11.	Kerala	1000.00	535.00	515.00	14.00	14.00	2.20	2.20	35.00	35.00	39.40	39.40	69.50	69.50
12.	Madhya Pradesh	6000.00	1823.00	1316.00	60.00	51.70	50.00	91.60	60.00	60.00	70.00	75.00	93.20	71.60
13.	Maharastra	4100.00	1693.00	958.00	50.00	30.00	50.00	95.00	50.00	50.00	50.00	50.00	51.14	56.07
14.	Manipur	135.00	40.00	24.00	8.70	5.00	4.00	13.80	5.00	9.00	9.00	3.20	2.00	5.00
15.	Meghalaya	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16.	Mizoram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17.	Nagaland	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.	Orissa	3600.00	1553.00	1508.00	9.00	7.00	7.00	9.00	34.00	21.00	26.00	3.00	77.40	37.70
19.	Punjab	3000.00	2463.00	2448.00	21.60	20.00	21.60	6.80	16.00	16.00	25.60	13.00	38.70	20.60
20.	Rajasthan	2750.00	1795.00	1425.00	43.00	35.00	14.00	97.00	48.00	30.00	50.00	21.00	42.00	16.98
21.	Sikkim	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	00.00
22.	Tamil Nadu	1500.00	1244.00	1225.00	20.10	15.10	20.50	14.90	9.00	30.00	8.40	7.20	1.78	5.64
23.	Tripura	100.00	0.00	0.00	0.50	0.50	0.00	0.00	0.50	1.00	1.00	0.50	1.00	1.00
24.	Uttar Pradesh	12500.00	6633.00	5517.00	38.00	40.50	64.00	66.00	115.00	100.00	116.00	102.00	178.25	159.12
25.	West Bengal	2310.00	1579.00	1470.00	15.50	16.25	2.60	5.70	24.00	21.00	20.90	20.70	77.49	39.74
	Total States	**58315.00**	**29993.00**	**25315.00**	**512.40**	**489.55**	**459.50**	**662.70**	**700.90**	**639.46**	**681.60**	**526.00**	**974.16**	**740.43**
	Union Territ7ries	**160.00**	**20.00**	**15.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.09**	**0.00**
	GRAND TOTAL	**58475.00**	**30013.00**	**25330.00**	**512.40**	**489.55**	**459.50**	**662.70**	**700.90**	**639.45**	**631.60**	**525.00**	**974.16**	**740.43**

Annexure-6.7

Benefits from Minor Irrigation

(000ha.)

Sl. No.	States/Ut.	Ultimate Irrigation Potential	Benefits to end of 1984-85		Benefits during 1985-86		Benefits during 1986-87		Target for 1987-88		Antcd. Achievement during 1987-88		Target for 1988-89	
			Potential	Utilisation	Potential	Utilisation	Potential	Utilisation	Potential	Utilisation	Potential	Utilisation	Potential	Utilisation
1.	Andhra Pradesh	4200.00	2340.60	2196.00	59.70	50.04	70.35	62.31	106.00	106.00	84.10	77.80	173.50	173.50
2.	Arunachal Pradesh	260.00	40.20	34.20	4.02	4.00	3.53	4.50	4.65	4.65	3.10	4.65	2.50	2.50
3.	Assam	1700.00	391.00	349.00	27.20	24.03	31.00	25.24	36.00	27.00	36.00	27.00	57.10	39.30
4.	Bihar	5900.00	3412.00	3145.00	180.00	144.00	195.00	150.00	220.00	165.00	197.50	160.00	435.60	393.60
5.	Goa*	20.00	14.30	13.60	0.33	0.25	0.46	0.38	0.80	0.58	0.93	0.70	1.00	1.00
6.	Gujarat	1750.00	1674.00	1609.00	36.00	38.00	18.00	12.00	20.00	21.00	17.00	9.00	47.60	33.00
7.	Haryana	1550.00	1387.00	1361.00	16.00	13.00	20.00	20.00	20.00	20.00	20.00	20.00	25.50	25.50
8.	Himachal Pradesh	285.00	117.00	105.00	1.35	0.86	1.77	1.32	3.30	2.30	3.27	2.30	5.50	5.00
9.	Jammu & Kashmir	550.00	337.00	327.00	3.45	4.19	3.52	3.75	3.80	3.80	3.25	3.00	5.50	5.50
10.	Karnataka	2100.00	1148.00	1115.00	16.20	15.08	30.95	29.00	40.00	40.00	36.00	34.00	45.00	45.00
11.	Kerala	1100.00	390.00	365.00	18.50	14.20	20.00	14.50	20.00	14.50	20.00	14.50	22.50	22.50
12.	Madhya Pradesh	4200.00	1992.00	1870.00	83.80	81.80	93.70	93.70	82.00	82.00	82.00	82.00	235.30	235.30
13.	Maharashtra	3200.00	1997.00	1832.00	37.00	23.50	42.00	24.00	50.00	30.00	47.00	30.00	115.60	99.60
14.	Manipur	105.00	39.00	34.00	2.02	1.11	1.52	1.16	1.20	1.20	1.50	1.20	3.00	2.50
15.	Meghalaya	100.00	35.00	32.00	1.75	1.08	1.53	0.42	2.00	2.00	2.03	1.53	2.60	2.40
16.	Mizoram	70.00	6.44	5.84	0.75	0.64	0.61	0.51	0.81	0.81	0.62	0.53	0.54	0.50
17.	Nagaland	80.00	51.00	47.00	2.03	1.05	2.15	1.59	2.30	1.60	2.20	1.60	2.90	2.00
18.	Orissa	2300.00	1060.00	980.00	50.05	31.00	60.50	43.00	65.00	46.50	65.00	46.50	177.10	152.50
19.	Punjab	3550.00	3164.00	3139.00	22.40	16.80	22.55	15.87	29.70	29.00	11.00	8.30	15.30	15.30
20.	Rajasthan	2400.00	1987.00	1937.00	34.93	35.70	57.01	38.40	39.x0	32.20	39.11	32.20	67.70	61.30
21.	Sikkim	22.00	14.00	10.00	1.00	1.05	1.57	1.30	1.80	1.30	1.55	1.30	1.65	1.65
22.	Tamil Nadu	2400.00	1950.00	1943.00	26.10	26.10	32.10	28.60	21.00	23.00	21.00	23.00	40.69	38.50
23.	Tripura	115.00	58.00	50.00	2.69	6.36	5.36	2.71	4.00	2.00	6.00	6.00	7.10	7.10
24.	Uttar Pradesh	13200.00	12131.00	11077.00	844.00	750.00	872.00	762.00	820.00	690.00	833.00	770.00	1187.00	1162.00
25.	West Bengal	3800.00	1702.00	1600.00	51.35	30.81	53.70	32.22	85.00	60.00	84.80	50.51	195.40	163.40
	Total State	**54957.00**	**37447.54**	**35175.64**	**1522.62**	**1314.65**	**1640.88**	**1368.48**	**1678.56**	**1406.44**	**1617.96**	**1407.62**	**2873.18**	**2690.45**
26.	A & N Islands		0.45	0.35	0.18	0.18	0.11	0.11	0.50	0.50	0.50	0.50	0.30	0.30
27.	Chandigarh		1.20	1.18	0.16	0.16	0.09	0.09	0.06	0.06	0.06	0.06	0.06	0.0
28.	Dadar & Nagar Haveli		0.63	0.60	0.02	0.03	0.05	0.05	0.08	0.06	0.08	0.06	0.08	0.086
29.	Daman Dui*												0.01	0.01
30.	Delhi	60.00	41.17	40.72	1.20	1.00	0.70	0.76	1.45	1.40	1.45	1.40	0.50	0.40
31.	Lakshadweep		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.	Pondicherry	30.00	28.73	28.70	0.70	0.29	0.43	0.10	0.46	0.01	0.46	0.01	2.50	2.40
	Total UT	**90.00**	**72.18**	**71.55**	**2.26**	**1.66**	**1.38**	**1.11**	**2.55**	**2.03**	**2.55**	**2.03**	**3.45**	**3.25**
	GRAND TOTAL	**55047.00**	**37519.72**	**35248.19**	**1524.88**	**1316.31**	**1642.26**	**1369.59**	**1681.11**	**1408.47**	**1620.51**	**1409.65**	**2876.63**	**2693.70**

**Includes potential and utilisation figures reported for earlier years under Goa, Daman & Diu.

Annexure 6.8

Abstract indicating the names of States under drought-relief Programmes & benefits of Irrigation Potential to be created on their Completion

Sl. No.	Name of State	Amount Sanctioned under drought relief (Rs. in lakhs).	Addl. Irrigation Potential likely to be created (th. ha.)
1	2	3	4
1.	Andhra Pradesh	22.0	20.408
2.	Gujarat	30.0 *27.78	30.808
3.	Haryana	2.0	2.000
4.	Himachal Pradesh	1.10	1.00
5.	J&K	6.40 *6.16	6.26
6.	Karnataka	25.0	8.00
7.	Kerala	5.50	2.50
8.	M.P.	27.0	23.71
9.	Maharashtra	26.0	14.0
10.	Nagaland	0.50	0.50
11.	Orissa	22.0	13.01
12.	Rajasthan	37.50	25.31
13.	Tamil Nadu	3.0	1.30
14.	Uttar Pradesh	28.0	24.04
	Total	**236.0**	**172.845**

*As for the revised sanction.

Annexure 6.9

Action Plan for food grain Production Irrigation Advancement Programme

Sl. No.	Name of the State	Major & Medium Irrigation Projects			Tank Irrigation Projects	Total for Major, Medium Irrigation Projects Additional outlay during 1988-89 (Rs. in lakhs)
		Total cost for indentified works (Rs. lakhs)	Additional Utilisation in June 1988 (50% Additional Potential in Ha).	Additional outlay during 1988-89 (Rs. lakhs)	Additional outlay during 1988-89 (Rs. in lakhs)	
1.	Andhra Pradesh	1165	10327	932	135	(134.50) 1067
2.	Assam	292	2500	234	..	234
3.	Bihar	694	17033	400	..	400
4.	Gujarat	305	7625	243	40	283
5.	Haryana	647	3315	400	..	400
6.	Karnataka	305	825	244	..	244
7.	Madhya Pradesh	200	1600	160	640	800
8.	Maharashtra	640	3075	513	..	513
9.	Orissa	1456	25705	937	920	1857
10.	Punjab	300	1500	240	..	240
11.	Rajasthan	270	1650	216	140	356
12.	Tamil Nadu	842		426	320	746
13.	Uttar Pradesh	3035	19125	2155	..	2155
14.	West Bengal	500	11745	400	..	400
	Total	**10651**	**106025**	**7500**	**2195**	**9695**

Annexure 6.10

Construction of Field Channels—Targets/Achievements

(Unit : '000 ha.)

Sl. No.	States/U.Ts.	Actual 1986-87	Target for 1987-88	Anticipated achv. for 1987-88	Targets for 1988-89
1.	Andhra Pradesh	38.01	70.00	8.13	20.00
2.	Assam	4.95	8.50	4.88	8.50
3.	Bihar	95.45	80.00	28.51	Nil
4.	Goa	0.73	1.50	1.50	2.50
5.	Gujarat	69.64	102.00	74.07	88.00
6.	Haryana	9.53	15.00	10.17	16.00
7.	Himachal Pradesh	0.86	0.80	0.73	1.40
8.	Jammu & Kashmir	2.19	2.50	3.36	3.04
9.	Kardataka	46.03	50.00	21.00	50.00
10.	Kerala	8.91	30.00	8.79	23.50
11.	Madhya Pradesh	52.33	120.00	31.50	66.85
12.	Maharashtra	47.51	95.00	67.88	50.00
13.	Manipur	4.60	5.00	5.05	5.00
14.	Orissa	43.32	60.00	33.32	55.00
15.	Rajasthan	20.16	47.80	35.74	29.00
16.	Tamil Nadu	37.69	64.00	41.73	60.00
17.	Tripura	..	..	..	Nil
18.	Uttar Pradesh	231.21	491.00	222.96	234.00
19.	West Bengal	6.44	27.50	4.35	22.00
20.	Dadra & Nagar Haveli	..	2.87	N.A.	..
	Grand Total	**719.56**	**1273.47**	**603.67**	**734.79**

Annexure 6.11

Land Levelling—Targets/Achievements

('000 ha.)

Sl. No.	States/U.Ts.	Actual 1986-87	Target for 1987-88	Anticipated achv. for 1987-88	Target for 1988-89
1.	Andhra Pradesh	24.96	24.00	14.93	20.00
2.	Assam	Nil	2.25	..	0.80
3.	Bihar	Nil	0.50	0.01	0.50
4.	Goa	0.02	0.50	0.11	0.50
5.	Gujarat	1.99	..	0.12	Nil
6.	Haryana	2.90	2.30	1.87	2.50
7.	Himachal Pradesh	Nil	0.10	..	0.20
8.	Jammu & Kashmir	2.86	3.50	2.30	3.10
9.	Karnataka	20.26	40.00	36.64	40.00
10.	Kerala	Nil	..	..	Nil
11.	Madhya Pradesh	1.84	..	..	Nil
12.	Maharashtra	19.94	70.00	9.62	30.00
13.	Manipur	Nil	1.00	..	1.00
14.	Orissa	Nil	..	..	4.00
15.	Rajasthan	1.83	4.00	11.24	4.00
16.	Tamil Nadu	Nil	..	..	Nil
17.	Tripura	Nil	..	..	Nil
18.	Uttar Pradesh	0.10	..	..	Nil
19.	West Bengal	Nil	..	0.10	Nil
20.	Dadra & Nagar Haveli	N.A.	1.00	0.03	1.00
	Grand Total	**76.70**	**149.15**	**76.97**	**107.60**

Annexure 6.12

Warabandi, Targets/Achievements

(Unit : '000 ha.)

Sl. No.	States/U.Ts.	Actual 1986-87	Target for 1987-88	Anticipated achv. 1987-88	Target for 1988-89
1.	Andhra Pradesh	232.02	200.00	..	382.00
2.	Assam	6.04	10.00	8.40	8.00
3.	Bihar	0.02	10.00	8.50	10.00
4.	Goa	0.15	1.00	0.57	1.25
5.	Gujarat	104.30	175.00	111.35	213.00
6.	Haryana	34.62	28.60	20.72	34.00
7.	Himachal Pradesh	0.55	0.20	0.21	0.50
8.	Jammu & Kashmir	6.00	22.00	21.80	Nil
9.	Karnataka	54.48	40.00	23.32	40.00
10.	Kerala	4.66	10.00	9.41	32.00
11.	Madhya Pradesh	98.59	135.00	148.00	176.00
12.	Maharashtra	53.86	140.00	110.62	50.00
13.	Manipur	5.40	4.00	2.75	5.00
14.	Orissa	28.24	55.00	35.63	39.00
15.	Rajasthan	10.90	34.80	28.04	14.00
16.	Tamil Nadu	8.76	75.00	2.15	10.00
17.	Tripura	..	..	..	Nil
18.	Uttar Pradesh	301.20	730.00	336.65	398.00
19.	West Bengal	..	10.00	0.02	Nil
20.	Dadra & Nagar Haveli	N.A.	..	N.A.	.
	Grand Total	**949.79**	**1680.60**	**868.14**	**1412.75**

CHAPTER 7

ENERGY

POWER

Review for 1987-88

7.1 Generation of Electricity: Against the target of 205 billion units (utilities only) the actual generation was 201.89 billion units, representing an overall shortfall of 1.5 per cent. In the case of thermal generation, the achievement was 104.5 per cent of the target, while in the case of hydro and nuclear, it was 84.0 per cent and 89.9 per cent respectively. The shortfall in hydro generation was due to severe drought conditions in many states resulting in lower reservior levels in most of the storage based hydel stations. The shortfall in nuclear generation was due to longer forced outages than programmed. The total generation during 1987-88 was higher than that in 1986-87 by 7.6 per cent, the thermal and nuclear generation being higher by 16 per cent and 0.2 per cent respectively with hydel generation remaining short by 11.8 percent. The contribution of Central Sector in the total generation was 26.8%.

7.2 The source-wise generation targets and achievements in respect of utilities are as under :—

TABLE 7.1

Source-wise Electricity Generation

(million Units)

	1986-87		1987-88	
	Target	Actual	Target	Actual
1. Hydro	57000	53764	56400	47396
2. Thermal	127800	128818	143000	149464
3. Nuclear	5200	5023	5600	5034
Total	**190000**	**187605**	**205000**	**201894**

The region-wise break up of actual generation in 1987-88 is given in Annexure 7.1

7.3 The all India Thermal Plant Load Factor (PLF) registered an improvement from 53.2 per cent in 1986-87 to 56.5 per cent in 1987-88. The following Table gives the sector-wise targets and achievements for 1987-88 :

TABLE 7.2

Sector-wise Plant Load Factor

(%)

	Targets	Achievements
Central Sector	59.8	63.3
State Sector	50.8	53.5
Private Sector	62.7	67.6
All-India	53.5	56.5

7.4 The targets and achievements in regard to PLF for all State Electricty Boards and Central power Organisations are indicated in Annexure 7.2. It would be seen there from that the performance was below the targets in Delhi, Bihar, Orissa, West Bengal, Assam, DPL, DVC and CESC.

7.5. Addition in capacity: The target for addition to generating capacity during 1987-88 was 4916.45 MW against which the achievement was 4981.25 MW. The project-wise targets and achievements are given in Annexure 7.3. Unit No. 3 at Ropar TPS (210 MW) and Unit No 5 at Korba STPS (500 MW) which were not included in the target were commissioned in the year. Major units which shipped from 1987-88 were Unchahar Unit No 1, Vindhyachal Unit No 2, Kadamparai Unit No. 3, etc. (List at Annexure 7.4). The capacity commissioned during the year is the highest capacity achieved so far during any year.

7.6 As on 31-3-88, the total installed capacity was 54319.94 MW compdising 17098.84 MW of hydel, 35891.1 MW thermal and 1330 MW nuclear. The share of the Central Sector, including nuclear, was 11687.5 MW.

7.7. Transmission Lines: The progrress regarding important transmission lines was as under :—

TABLE 7.3

	Target	Achievement
	(CKM)	(CKM)
400KV	2694	1818
220 KV	2730	2445

The slippages in 400|220 KV lines were mainly due to delay in forest clearances, right of way problems and unsatisfactory progress of work by contractors.

7.8 *Renovation and Modernisation* : In the case of Centrally Sponsored Scheme of Renovation and Modernisation of Thermal Plants covering 32 thermal power stations, having 156 generating units of various sizes, about 85% of the Annual Plan 1987-88 provision of Rs. 100 crores in the Central Sector was utilised while a large part of the outlay of Rs. 154.30 crores in the State Sector remained unspent dut to delay in placing orders for equipment and award of contracts.

7.9 *Outlay and expenditure* : The total expenditure in the Power Sector during 1987-88 is estimated around Rs. 7438 crores against the approved outlay of Rs. 8280.91 crores, as shown below :—

TABLE 7.4

(Rs. crores)

	1986-87	1987-88	
	Actual	Approved Outlay	Revised Estimates
States & U.Ts. .	4073.02	5286.19	4297.22
Central Sector .	2628.43	2994.72	3140.48
Total . .	**6701.45**	**8280.91**	**7437.70**

The utilisation of other provisions excluding RE component, available for development programmes in the power sector, is compared below :

		1986-87	1987-88
		Approved Outlay	Revised Estimates
Power component of Special Area Programme of North Eastern Council .	45.33	63.29	44.88

Annual Plan 1988-89

7.10 *Generation* : The total electricity generation in utilities in 1988-89 is estimated at 226.5 billion units, as indicated below :—

TABLE 7.5

Generation Target for 1988-89

(Billion Units)

1. Hydro	58.0
2. Thermal	163.0
3. Nuclear	5.5
Total	226.5

Region-wise details are given in Annexure 7.1.

7.11. The total generation envisaged for 1988-89 is 10.5% higher than the target for the preceding year. The overall Plant Load Factor envisaged is 56.0 per cent. Additional energy of about 1.2 billion units is expected to become available from the Chukha project in Bhutan.

7.12 *Addition in Capacity* : The target for additions to installed capacity during 1988-89 is as follows :—

TABLE 7.6

Additions to Generating Capacity (MW)

1. Hydro	937.00
2. Thermal	3324.50
3. Nuclear	235.00
Total	**4496.50**

The above includs a capacity of 642 MW which has spilled over from 1987-88.

7.13 Of the total additional generating capacity targetted for 1988-89, a capacity of 1785 MW is expected to be commissioned in the Central Sector. The scheme-wise details of additions to installed capacity during 1988-89 are in Annexure 7.5. In addition, efforts are being made to commission Rihand Unit No. 2 (500 MW) not included in the target.

7.14 *Transmission Lines* : The targets for 1988-89 for 400 KV and 220 KV transmission lines are 2824 CKM and 3195 CKM respectively. The details are indicated in Annexure 7.6.

7.15 *Plan Outlay* : The total outlay for power sector (excluding RE component) for 1988-89 is Rss 9130.84 crores, as shown below :

TABLE 7.7

Plan Outlay for 1988-89

(Rs. Crores)

1. States and Union Territories . .	5168.14*
2. Central Sector	3962.70
Total	9130.84

* Excludes Rs. 453.24 crores approved for R.E.

This includes an outlay of Rs. 229.16 crores (Rs. 164.16 crores in States and U.Ts. and Rs. 65.00 crores in the Central Sector) for the Centrally sponsored scheme of Renovation and Modernisation of Thermal Plants.

7.16 The outlay for 1988-89 is about 30 per cent higher than the revised estimates for 1987-88. The break up of the outlay for the States, Union Territories and Central Sector is given in Annexure 7.7.

Scheme-wise details of the outlay for power generation schemes are given in Annexure 7.8 and 7.9.

7.17 In addition to above, a provision of Rs. 51.13 crores would be available for special area programme for the power sector under NEC Plan.

7.18 *Captive Power* : The addition to installed capacity in captive power plants during 1986-87 is placed at 510 MW. With this addition, the total installed capacity of such plants is estimated to have gone upto 6140 MW by the end of 86-87. The generation from captive plants in 1985-86 and 1986-87 is placed at 13.3 and 14.3 billion Units respectively.

7.19 *Energy Conservation* : The rising energy demand can be met through creation of additional generating capacity, together with demand management and implementation of various energy conservation measures. Various energy conservation measures involve small investment and short gestation period. Efforts are being made to eliminate wastages of energy in all forms. Under the Power Sector, effective steps are being taken for reduction in auxiliary consumption of thermal stations, augmentation and upgradation of Transmission & Distribution system, limiting consumer Power Factor, improvement in Irrigation Pumpsets, measurement of energy by correct meters and raising the off peak demand by load management, and power factor control in the distribution system by reactive compensation. Many organisations are planning and implementing various functional programmes for savings in industrial, agricultural and commercial sectors and Power network system as a whole. A Study Group has been set up to deliberate upon various measures to meet the peak demand. Also, installation of capacitors during 1988-89 totalling about 4500 MVAR has been programmed in consultation with concerned States and Central Electricity Authority.

Coal and Lignite

Review for 1987-88 : Coal

Demand

7.20 The demand for Coal in 1987-88 was estimated at 192.05 mt (excluding 5.20 mt washery middlings). Against the estimated demand the achievement was 177.81 mt. (excluding 2.92 mt. middlings). The shortfall in other sectors was mainly due to lower production of output e.g. hot metal, fertiliser, cement etc. as compared to respective targets and transportation constraints. There was 98.9% materialisation (including middlings) in power sector (utilities). The consumerwise break-up of the offtake is given in Table 7.8.

TABLE 7.8

Consumerwise Break-up of Coal Offtake

(Million tonnes)

Consumer	1986-87	1987-88		1988-89
	Actual	Target	Actual	Target
1. Steel & Coke-ovens . .	25.82	31.10	23.60 + 3.06*	31.00
2. Power—utilities	81.89 (2.01)	92.80 (3.90)	93.60 (1.97)	107.50+ (4.00)
3. Railways .	7.87	7.70	7.22	7.00
4. Cement .	8.54	10.60	8.25	11.50
5. Fertilizers .	4.43	5.00	3.95	5.20
6. Soft Coke .	2.04	3.70	1.88	3.00
7. Other industries inc. captive power . .	30.86	36.80 (1.30)	32.06 (0.15)	36.00
8. Export .	0.16	70.35	0.17	0.30
9. Colliery consumption	4.02	4.00	3.93	4.00
Total ; . .	**165.63 (2.01)**	**192.05 (5.20)**	**177.81 (2.12)**	**205.50 (6.00)**

*Imported coal

+Including 5 Mt. for stock build up in power stations.
Figures in bracket relole to washery middlings.

Production

7.21 Taking into account the high coal stocks at pithead and need for import of 2.8 mt. of superior coking coal, the production target was fixed at 183.50 mt. (CIL-158.00 mt., SCCL- 20 mt. ; TISCO|IISCO|DVC-5.50 mt.). The gap of 8.55 mt. was proposed to be met from draw down of pithead stocks and import of superior quality coking coal. The actual production was 179.75 mt. Singareni Collieries Co. Ltd. (SCCL) could only achieve 82% of its target because of labour strike (total loss of production was 3.6 mt. of which 2.38 mt. was due to strike). CIL achieved a production of 159.01 mt. which was 1.01 mt more than the target, this was in-spite of the strike called by the workers in the month of March, 1988. The TISCO|IISCO|DVC achievement was 79% of the target. Company-wise break up of production against target is given in Table—7.9.

TABLE 7.9

Companywise Raw coal Production

(million tonner)

Name of the	1986-87	1987-88		1988-89
	Actual	Target	Actsal.	Target
1	2	3	4	5
CBNJ INDIA LTD				
1 Eastern Coalfields Ltd (ECL) .	25.62	27.96	27.99	30.10
2 Bharat Coking Ceal Ltd (BCCL)	25.01	24.49	25.11	26.10
3 Central Coalfields Ltd (CCL) .	25.11	27.22	27.27	28.00
4 Northern Coalfield Ltd (NCL) .	13.60	16.25	16.49	19.35
5 Western Coalfields Ltd (WCL) .	19.34	20.50	21.20	21.86
6 South Eastern Coalfields Ltd. (SCEL) .	36.15	39.58	39.95	43.67
7 North Eastern Coalfields (NEC) . .	0.91	1.00	1.00	1.00
Sub-Total—CIL	144.74	158.00	159.01	170.08
B. SINGARENI COLLY Co. Ltd. .	16.58	20.00	16.40	20.50
C. TISCO/IISCO/ DVC .	4.45	5.50	4.34	5.70
Total .	165.77	183.50	179.75	196.28

Pithead Stocks

7.22 It was expected that the pithead stock would go down by around 6 mt. at the end of the year against a beginning of the year level of 29.41 mt. But the stocks actually increased to a new high of 33.76 mt. at the end of the year due to lower demand materialisation and also due to mismatches between movement and supply plans. This was despite the fulfilment of rail movement target of 125 mt. in the year. This rail movement was an improvement of around 8 mt. over the 1986-87 level. The daily average loading of wagons in 1987-88 was 14372 against 13552 daily average loading in 1986-87 and 12996 in 1985-86.

Productivity

7.23 The productivity of CIL in terms of output per manshift was 1.08 tonnes against target of 1.02 tonnes which was 9.1% over the 1986-87 level. In case of SCCL, the productivity was 0.78 tonne against target of 1.08 tonnes.

Washed Coal Production

7.24 The washed coal production of 8.26 mt. was achieved against the CIL's target of 9.70 mt. (prime-4.11 mt., medium-5.59 mt.) for 1987-88. This shortfall was mainly due to difficulties in the operation of newly commissioned Rajrappa washery and insufficient raw coal availability for Kargali & Kathara medium coking coal washeries.

Exploration

7.25 The exploration target for 1987-88 was 4.71 lakh metres (CIL—4.06 in association with MEC, SCCL-0.65). Against this actual drilling in 1987-88 was 4.18 lakh metres (CMPDIL—1.388 lakh metres, MEC—1.75 lakh metres, SCCL—0.67 lakh metres and others—0.372 lakh metres).

Project Implementation

7.26 As on 31-12-1987, 290 coal mining projects each costing Rs. 2 crores and above, with a total investment of Rs. 7516 crores and ultimate capacity of 229.0 million tonnes per annum, were sanctioned since nationalisation. Of these 100 mining projects were completed. Remaining 190 projects were in various stages of implementation. Out of 190 projects, 116 projects were on schedule, 69 projects were delayed and 5 projects could not be taken up for implementation due to difficult geo-mining conditions. Besides, 67 non-mining projects were also sanctioned (coal washeries, fire control, workshops, etc.). Of these, 32 projects were completed. In 1987-88 apart from the projects for advance actions, 2 new coal mining projects costing Rs. 20 crores and above namely, Niljai Opencast of Western Coalfields Ltd. (Rs. 96.89 crores) and Nigahi Opencast of Northern Coalfields Ltd. (Rs. 462.39 crores) were sanctioned for a capacity of 6.10 million tonnes. In addition of Pootkee Prime Coking Coal Washery of Bharat Coking Coal Co. Ltd. was also sanctioned at a cost of Rs. 92.17 crores.

Lignite

7.27 Production of lignite at Neyveli continued to show excellent performance. As against the target of lignite from Neyveli of 9.15 million tonnes (First mine—6.5 mt., second mine—2.65), a production of 10.15 mt. (First mine—7.13 mt., Second mine—3.02 mt.) was achieved. In addition, the Gujarat Mineral Development Corporation produced 1.10 mt. against the target of 1.02 mt.

Annual Plan 1988-89

7.28 The demand of coal in 1988-89 is estimated at 205.5 mt. (excluding 6 mt. middling) which includes 5 mt or required stock build up at the power stations. Details are given in Table 7.8. Excluding the requirement for stock build up, the consumption will be 22.69 mt. (12.8 per cent) more than the offtake level in 1987-88. Power sector (utilities) accounts for 52.3 per cent, other main consumers being are steel (15.1 per cent), Railways (3.4 per cent), cement (5.6 per cent), fertilizer (2.5 per cent), soft coke (1.4 per cent). Small consumers clubbed as 'Others' account for 36.00 mt. (17.5 per cent).

7.29 The constraints of supply of prime coking coal from indigenous sources to steel plants would continue due to delays in commissioning of new washeries at Pootkee and Bhalgora. The availability of medium coking coal may also continue to be a serious problem due to operational problem in Rajrappa washery (commissioned in 1987-88) and shortfall in availability of raw coal for Kathara and Kargali washeries. The Plan envisages an import of 3.4 mt. of superior coking coal to bridge the gap between demand and availability, as also for qualitative improvements.

Production

7.30 The target for coal production in 1988-89 has been fixed at 196.28 mt. Company-wise details are given in Table 7.9. There should not be any problem to meet the demand (205.5 mt.) which is 9.22 mt. more than the production target (196.28 mt.) because of large accumulated pithead stock availability and the need for import of coking coal.

Movement

7.31 It has been targetted to move at least 132 mt. of coal by rail during 1988-89, as against 126.20 million tonnes in 1987-88. The consuming sector-wise break up is as follows :—

(million tonnes)

Consuming Sector	1987-88	1988-89
1. Coal for Steel Plants . .	18.78	19.50
2. Washeries	5.59	6.00
3. Thermal Power Plants . .	67.25	70.00
4. Other users . . .	27.38	29.50
5. Railways own wagons . .	7.20	7.00
Total—Rail Movement . .	**126.20**	**132.00**

The total movement of coal by different modes is as below :—

(million tonnes)

Modes	1987-88	1988-89
Rail	126.20	132.00
MGR	27.00	22.00
Belt/Rope/Others . . .		18.00
Road	41.32	38.00
Colliery Conumption . .	3.95	4.00
Total	**198.47**	**214.00**

Coal movement includes double movement by rail and road.

Productivity

7.32 The productivity in terms of output per manshift in 1988-89 has been fixed at 1.12 tonnes (against 1.08 tonnes in 1987-88) for CIL and 1.01 tonnes for SCCL in 1988-89 (against 0.78 tonne in 1987-88). These imply an improvement of 3.7 per cent and 29.4 per cent for CIL and SCCL respectively compared to last year.

Exploration

7.33 The drilling target for 1988-89 is 4.64 lakh metres (CIL-3.79, SCCL-0.85). After the preliminary demarcation of potential geological blocks, the detailed exploration for coal for CIL would be taken up by Central Mine Planning and Design Institute (CMPDI) with the help of Mineral Exploration Corporation Ltd. (MEC).

Coal Handling Plants

7.34 It is expected that by the end of 1988-89, 74 per cent of the coal production in CIL would pass through Coal Handling Plants (CHPs) against 61 per cent in 1987-88. All raw coal at Singareni passes through CHPs.

Environment Safeguards, Welfare Measures and Safety

7.35 In order to fulfil the thrust areas identified in the Seventh Plan, special attention is given to environmental safeguards, mining electronics and communication system for safety and conservation. The welfare measures for mine workers would also continue as an integral part of the plan programme to improve quality of life of coal miners. The main thrust has been on improving water supply, medical and educational facilities.

Science & Technology

7.36 R&D activities in Coal Sector would continue under the overall guidance of the Standing Scientific Research Committee for the coal sector chaired by Secretary (Coal). In addition to four major areas dealing with (i) Production, productivity & safety, (ii) Coal preparation, (iii) Coal utilisation & (iv) Environment and ecology, two major experimental projects one for coal slurry transportation and the other for insitu coal gasification were included in the Seventh Plan. The feasibility report (for demonstration scale operation between New Majiri Colliery of WCL and Chandrapura TPS) is to be prepared by Engineers India Ltd. with foreign back up Consultants. For insitu coal gasification, data of 3 sites are under generation for finding the feasibility of this method of coal mining and utilisation.

7.37 A significant development took place in R&D trial of use of beneficiated non-coking coal for thermal power stations in 1987-88. Trial of coal beneficiated at Nandan Washery and used in Satpura TPS conclusively established the benefits of use of washed coal in preference to raw coal in a power station, although economics was yet to be worked out.

Integrated Gasification Combined Cycle is an upcoming technology for power generation which has been proved elsewhere with low ash coal. Considering that Indian coal available for power generation has high ash content, a special emphasis would be made on testing of such coal to generate all data to suggest or otherwise the setting up of a demonstration plant.

Lignite

7.38 The target of lignite production at Neyveli during 1988-89 has been fixed at 11.46 mt. (6.5 mt. from first mine and 3.96 mt. from second mine). The implementation of Second Mine Stage II (10.5 million tonnes) has been taken up on priority basis so as to complete it by early 1990.

NLC will be nodal agency to implement lignite-cum-power project in Rajasthan. It is proposed that NLC may start work on first mine expansion as well as Rajasthan Lignite-cum-Power projects in 1988-89. For the exploration activities n Rajasthan, adequate provision has been made in the NLC's outlay.

Plan Outlay

7.39 An outlay of Rs. 1733.00 crores has been provided in the Central Sector for the development of Coal and Lignite in 1988-89. This is 30.3 per cent more than outlay of Rs. 1330.00 crores in 1987-88 Plan. Details of the outlay are given in Table 7.10 and Annexures 7.10—7.18.

TABLE 7.10

Central Outlay for Coal and Lignite

(Rs. Crore)

Company	1986-87	1987-88		1988-89—
	Actual	Plan outlay	R.E.	Plan Outlay
1	2	3	4	5
1. Coal India Ltd.				
1. E.C.L. . .	156.26	172.00	150.00	212.71
2. B.C.C.L. .	170.33	152.00	185.00	178.19
3. C.C.L. . .	118.05	97.00	91.00	122.20
4. N.C.L. .	186.59	280.00	230.00	346.45
5. W.C.L. .	121.99	97.00	90.00	142.81
6. S.E.C.L. .	182.74	185.00	175.00	272.60
7. N.E.C. .	5.59	10.00	5.00	7.04
8. C.M.P.D.I.L.	38.86	10.00	8.94	12 00
9.. CIL HQr. & Dankuni		23.00	26.06	20.00
Total C.I.L. .	980.41	1026.00	961.00	1314.00
II. S.C.C.L. .	101.82	115.00	100.00	145.00
III. N.L.C. (Mines)	145.69	180.00	212.97	265.00
IV. Science & Technology .	5.13	9.00	7.00	9.00
Total Coal & Lignite . .	**1233.05**	**1330.00**	**1280.97**	**1733.00**

Petroleum and Natural Gas

Review for 1987-88

7.40 As against the target of 30.46 million tonnes for crude oil production in 1987-88, the actual production was 30.35 million tonnes, as shown in Table 7.11 below:

TABLE 7.11

Crude Production in 1987--88

(In million tonnes)

	Target	Achievement	Achivement as % of target
1	2	3	4
Oil & Natural Gas Commission (ONGC)			
Onland . . .	7.70	7.74	100.5
Offshore . . .	19.92	20.16	101.2
Sub Total . . .	**27.62**	**27.90**	**101.0**
Oil India Ltd. (OIL)			
Onland . . .	2.84	2.45	86.3
Total	30.46	30.35	99.6

The position in regard to Surveys in onland and Offshore areas of ONGC and OIL is brought out in Table 7.12 below:

TABLE 7.12

Surveys in 1987-88

Units		Target	Achivement	Achievement as % of target
I. ONGC				
Onland				
Seismic SLK . .		19105	43896	230
GLK .		3520	4377	124
Gravity-Magnetic	No. of stations	5950	10009	168
Geological	Sq. Kms	8975	11955	133
Offshore				
Seismic	LK	36000	37885	105
II. OIL				
Onland	LK	3462.5	2656.1	107.8

The drilling targets and achievements are shown below in Table 7.13.

7.41 In the case of ONGC, in onland areas, there was some shortfall in exploratory and development drilling on account of deployment of lesser number of rigs. In the case of offshore areas, there was shortfall for exploratory drilling whereas in development drilling, target was exceeded.

TABLE 7.13

Drilling Meterage in 1987-88

('000 Meters)

	Target	Achievement	Achievement % of target
I. ONGC			
(i) Onland			
(a) Exploratory	294.09	268.3	91.0
(b) Development	316.75	308.9	98
Sub-Total (i)	**610.84**	**577.22**	**95.0**
(ii) Offshore			
(a) Exploratory	142.36	105.0	74
(b) Development	148.32	160.5	108
Sub-Total(ii)	**290.68**	**265.5**	**91**
Total : ONGC	901.52	842.7	94
II. OIL			
(i) Onland			
(a) Exploratory	37.5	31.22	83.2
(b) Development	84.0	79.27	94.3
Sub-Total(i)	121.5	110.49	90.0
(ii) Offshore			
(a) Exploratory	7.5	7.31	97.4
Total : OIL	**129.0**	**117.80**	**91.3**
Total (I & II)	**1030.52**	**960.50**	**93.2**

In the case of OIL, there was shortfall in exploratory and development drilling in onland areas. As regards offshore areas, there was marginal shortfall in exploratory drilling.

7.42 The targets of LPG production by fractionation of gas and the achievements are given below in the Table 7.14. In the case of ONGC, the production was slightly less than the target whereas in the case of OIL, the target was exceeded.

TABLE 7.14

LPG Production by Gas Fractionation in 1987-88

('000 tonnes)

	Target	Achievement	Achievement as % of target
I. ONGC			
(a) Bombay region	471.0	509.8	99.8
(b) Western region	40.0		
Sub Total ONGC	511.00	509.8	99.8
II. OIL	48.00	48.09	100.2
Total (I & II)	**549.0**	**557.89**	**101.6**

7.43 As regards gas despatches, the targets and achievements are given below in the Table 7.15. The ONGC exceeded the targets in Bombay Eastern, and Central regions but there was shortfall in the Western region. In the case of OIL, there was shortfall in despatches.

TABLE 7.15

Natural Gas Despatches in 1987-88

(Million M^3)

	Target	Achievement	Achievement as % of target
I. ONGC			
(a) Bombay Region	4500.0	4960.54	110.2
(b) Eastern Region	200.0	231.96	116.0
(c) Western Region	850.0	660.39	77.7
(d) Central Region	30.0	30.73	102.4
(c) Southern Region	...	1.38	...
Sub-Total : ONGC	**5580.0**	**5885.0**	**105.4**
II. OIL	**977.4**	**737.29**	**75.4**
Total (I & II)	**6557.4**	**6622.29**	**100.9**

Gas Authority of India Ltd.

7.44 The first phase of HBJ pipeline upto Bijaipur was commissioned is August, 87. The pipeline upto Indo-Gulf fertilisers was completed and gas supply stated in March, 88.

Refining and Marketing

7.45. The consumption of petroleum products during 1987-88 was 46.20 million tonnes as against 43.39 million tonnes in 1986-87, representing an increase of 6.2 per cent. The growth in the consumption of middle distillates was 8.7 per cent in 1987-88 as against 6.9 per cent in 1986-87.

The refinery crude throughput during 1987-88 was 47.72 million tonnes against the target of 46.95 million tonnes and actual throughput of 45.69 million tonnes in 1986-87. The over achievement is mainly on account of higher throughput achieved at refineries of Bharat Petroleum Corporation Ltd. (BPCL) and Hindustan Petroleum Corporation Ltd. (HPCL) at Bombay, Bongaigaon Refinery and Petrochemicals Ltd. (BRPL), Assam and at Gujarat, Haldia and Mathura Refineries of the Indian Oil Corporation (IOC).

7.46 The installed refining capacity in the country at the end of 1987-88 was 48.70 million tonnes, which includes 2 million tonnes of swing refinery of HPCL, Bombay. Additional processing facilities at Koyali refinery in Gujarat to maximise the production of middle distillates by hydrocracker process have been approved and the project is expected to be completed by 1992. Approval has also been given to preparation of detailed Project Report for 6 million tonnes refinery at Kernal in the joint sector.

7.47 The Bonfiaigaon Refinery has increased its capacity by 0.35 million tonnes per annum (MMTPA). The capacity of Mathura Refinery is being increased from 6 MMTPA to 7.5 MMTPA by debottlenecking. Low cost revamping is being done to increase the capacity of the Gujarat Refinery from 7.3 MMTPA to 9.5 MMTPA.

HPCL and BPCL are installing captive power plants based on co-generation concept at their Bombay Refineries.

The refineries are also implementing energy conservation schemes which include :

(i) Revamping|replacing low efficiency furnaces by high efficiency ones.

ii) Addition of air-pre-heaters|economisers.

(iii) Replacement of boilers.

(iv) Improvement in heat exhanger train.

Research & Development

7.48 The Institute of Drilling Technology continued its work in the field of cementation problems and development of drilling fluids for high pressure and temperature zones. The Institute of Reservior Studies reviewed reservior performance and prediction of Bombay High etc. Technological schemes for new discoveries were formulated. The KDM Institute of Petroleum Exploration continued to provide R&D back up to the exploration efforts and development of new techniques and expertise in the field of geophysics, geochemistry, mathematics. computer science etc. Two more Institutes namely Institute of Engineering and Ocean Technology and Institute of production Technology are being set up in Bombay. The R&D Centre of IOC continued work on some aspect of process development to assist the refining industry. The R&D Centre of LIL conducted studies and evaluation of Flow-improver for Bombay High Crude. The R&D Centre of Engineer India Ltd. (EIL) is being set up at Gurgaon.

Programme for 1988-89.

7.49 The exploratory activities will be further intensified in 1988-89. The targets for surveys in 1988-89 are given in Table 7.16 below :—

TABLE 7.16

Survey Programme for 1988-89

Programme	Units	Targets
I. ONGC		
(a) Seismic		
(i) Onland .	SLK	19540
(ii) Offshore . . .	GLK	3500
(b) Gravity-Magnetic . .	(No. of stations)	7000
(c) Geological .	(Sq. Kms)	9025
II OIL		
(a) Onshore . . .	LK	2200
(b) Offshore . . .	LK	Nil

7.50 As regards Exploratory drilling, ONGC has planned 520,270 metres in 1988-89. The onland exploratory drilling programme would be mostly concentrated in upper Assam, Assam-Arakan Fold Belt, Cambay, basin, Himalayan Foothills and Ganga Valley. In case of offshore areas, Bombay High will continue to receive priority. ONGC has planned 511,480 metres of development drilling in Bombay offshore area, Upper Assam and Assam-Arakan Fold Belt and Cambay basin. Thus, ONGC will be drilling a total of 1031,750 metres during the year. OIL has planned a total drilling of 166,500 metres consisting of 54,500 metres of exploratory drilling and 112,000 metres of development drilling. The details of the drilling programme for the year are given below in the Table 7.17.

TABLE 7.17

Drilling Programme 1988-89

('000 Meters)

I. ONGC	
1. **Onland**	
(a) Exploratory	343.27
(b) Development	351.48
Sub Total	**694.75**
2. **Offshore**	
(a) Exploratory	177.00
(b) Development	160.00
Sub Total	**337.00**
Total : ONGC	**1031.75**
II. OIL	
1. **Onland**	
(a) Exploratory	50.00
(b) Development	112.00
Sub Totql	**162.00**
2. **Offshore**	
Exploratory	**4.5**
Total : OIL	**166.5**
Total (I & II)	**1198.25**

7.51 Crude oil production during the year is targetted at 32.18 million tonnes, as detailed in Table 7.18.

TABLE 7.18

Crude Oil Production during 1988-89

	(Million tonnes)
I. ONGC	
1. Onland	
(a) Cambay basin	5.50
(b) Upper Assam	2.90
Sub Total	8.40
2. Offshore	20.88
Total : ONGC	**29.28**
II. OIL	**2.90**
Total (I & II)	**32.18**

The targets of Crude oil production for 1988-89 together with targets and achievements for 1987-88 are given in Annexure 7.19.

The total gas despatches by ONGC and OIL are targetted at 8066 million cubic metres, as indicated in Table 7.19 given below

TABLE 7.19

Natural Gas Despatches in 1988-89

	(Million Cubic Metres)
I. ONGC	
(a) Bombay Region	6031.00
(b) Eastern Region	285.00
(c) Western Region	800.00
(d) Central Region	50.00
Sub-total	7166.00
II. OIL	900.00
Total (I & II)	8066.00

7.52 The LPG producion from fractionation of Natural Gas both by ONGC and OIL is targetted at 708 thousand tonnes, as shown in the Table 7.20 below :

TABLE 7.20

LPG Production by Gas Fractionation in 1988-89

	(000 tonnes)
I. ONGC	
(a) Bombay Region	611.00
(b) Western Region	45.00
Sub-total	656.00
II. OIL	52.00
Total (I & II)	708.00

In addition, ONGC will be producing about 582,000 tonnes of Natural Gasoline Liquid (NGL) from South Bassein Field.

Refining and Marketing

7.53 The demand for petroleum products in 1988-89 is estimated at 49.80 million tonnes. This indicates a growth of 7.8 per cent over the consumption in 1987-88. The corresponding demand for middle distillates is expected to grow by 7.75 per cent.

The crude throughput target for the year has been fixed at 48.898 million tonnes. The refinery-wise targets together with the targets and achievements for 1987-88 are given in Annexure 7.20.

Work on additional secondary processing facilities at Gujarat Refinery (IOC) is expected to be in full swing during the year.

The consumption of LPG is expected to increase from 1682 thousand tonnes in 1987-88 to 1970 thousand tonnes in 1988-89. This will represent a growth rate of about 17.1 per cent.

Demand of motor spirit is expected to be 3111 thousand tonnes in 1988-89 as compared to the consumption of 2803 thousand tonnes during 1987-88. This represents a growth rate of 11.0 per cent as compared to 11.8 per cent during 1987-88.

Projects

7.54 The second phase of work on the HBJ pipeline by GAIL is expected to be over by January 1989. GAIL will also be laying spur lines upto IEL Kanpur, Dadri and Delhi during 1988-89.

The other major projects in petroleum production, refining and marketing scheduled for completion during 1988-89 are : Accelerated programme of Production for Bombay High, Acquition of 22 nos. Onshore Dirilling Rigs for Exploration, Waste Heat recovery Plant (OIL), Debottlenecking of Gujarat and Mathura refineries, Computer system, Captive Power Plant of BPCL.

Research & Development

7.55 During 1988-89 the Institute of Drilling Technology proposes to undertake sponsored projects from the various work centres of ONGC. It is planned to undertake about 180 R&D projects the Institute of Reservoir Studies. These will include studies like analysis of current reservoir condition of Bombay High North and South, integrated development plan for Gandhar and Razol fields, characterisation of ploymer samples, review of acid stimulation of Bombay High enhanced oil recovery schemes etc.

7.56 The K. D Malavya Institute of Petroleum Exploration envisages to undertake 200 R&D projects. The main emphasis will be on improving quality and efficiency of exploration and minimisation of risks. In additions, various projects under S&T Plans and collaborative projects with Universities and Institutes will be undertaken. Underground coal gasification studies are also to be continued.

7.57 Two more Institutes are being set up in Bombay. These are, Institute of Production Technology (IPT) and Institute of Engineering and Ocean Technology (IEOT). The FCC process development has been identified as a priority project for the R&D Centre of IOC. In addition work will continue on development of lubricants and refinery processes, such as synthetic greases, Marine oils, 2 T oils, distillation unit crude evaluation, diesel quality etc.,

7.58 An outlay of Rs. 2869 crores has been provided for the programmes of exploration, production and transportation of oil and gas. For refining and marketing the outlay is Rs. 458 crores. The total outlay for petroleum and gas thus comes to Rs. 3327 crores. The organisation-wise outlay is given in Annexure 7.21 and scheme-wise outlay in Annexure 7.22.

Annexure 7.1

Energy Generation in 1986-87, 1987-88 and 1988-89 (utilities)

(Million Units

Region	1986-87				1987-88								1988-89			
	Actual				Target				Actual				Target			
	Hydro	Thermal	Nuclear	Total	Hydro	Thermal	Nuclear	Total	Hydro	Thermal	Nuclear	Total	Hydro	Thermal	Nuclear	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Northern	22298	29219	1325	52842	21760	33901	1160	56821	21072	37049	1396	59517	23200	41980	1160	66340
Western	5839	55289	2000	63128	6520	58201	1860	66581	4838	62506	1601	68945	6550	66049	1760	74359
Southern	21288	24105	1698	47091	23517	24548	2580	50645	17535	28062	2037	47634	22635	29639	2580	54854
Eastern	3455	19175	...	22630	3510	24590	...	28100	3016	20630	...	23646	3980	24030	...	28010
North-Eastern	884	1030	...	1914	1093	1760	...	2853	935	1217	...	2152	1635	1302	...	2937
Total	53764	128818	5023	187605	56400	143000	5600	205000	47396	149464	5034	201894	58000	163000	5500	226500

ANNUAL PLAN 1987-88

(%)

Seb/organisation	Target	Achievement
1	2	3
D.E.S.U.	62.9	49.1
H.S.E.B.	40.0	40.6
R.S.E.B.	56.9	71.5
P.S.E.B.	63.5	71.5
U.P.S.E.B.	45.4	47.1
G.E.B.	56.6	60.0
M.S.E.B.	53.0	57.0
M.P.E.B.	49.7	53.3
A.P.S.E.B.	65.1	76.2
T.N.E.B.	58.1	68.7
K.S.E.B.	54.5	64.5
B.S.E.B.	40.1	33.0
O.S.E.B.	35.0	32.5
W.B.S.E.B.	43.5	38.6
WBP Dev	46.1	52.4
D.P.L.	35.0	31.4
A.S.E.B.	42.0	31.0
Total SEB'S	**50.8**	**53.5**
Central Sector		
N.T.P.C.	64.0	71.2
NEYVELI	60.6	69.8
D.V.C.	49.0	39.9
All India	**53.5**	**56.5**

Annexure 7.3

Target and Achievement of Additions to Generating Capacity 1987-88

Sr. No.	Name of Scheme	Unit No.	State/ Agency	Target (MW)	Achievement (MW)	Slippage (MW)	Advancement (MW)	Date of commissioning/Rolling
1	2	3	4	5	6	7	8	9
	NORTHERN REGION							
	Hydro							
1.	W.Y. Canal	3&4	Haryana	16	16	—	—	15-5-87, 1-6-87
2.	Andhra	1, 2 & 3	H.P.	16.95	16.95	—	—	29-9-87, 29-9-87 21-12-87
3.	Rongtong	3 & 4	H.P.	1	1	–	—	2-7-87, 2-7-87
4.	Stakna	2	J & K	2	2	–	—	9-12-87
5.	Anoopgarh	1 to 6	Rajasthan	9	9	–	—	8-9-87, 17-3-88, 12-9-87, 9-12-87, 14-1-88, 12-3-88
6.	Suratgarh	1 & 2	-do-	4	—	4	—	
7.	Mangrol	1, 2 & 3	-do-	6	—	6	—	
8.	Salal	1, 2 & 3	NHPC	345	345	—	—	9-11-87, 14-11-87 20-11-87
	Sub-Total			**399.95**	**389.95**	10	—	
	Thermal							
9.	Ropar	3	Punjab	–	210	—	210	31-3-88
10.	Anpara 'A'	3	UP	210	210	—	—	12-3-88
11.	Tanda	1	UP	110	110	—	—	21-3-88
12.	Unchahar	1	UP	210	—	210	–	
13.	Singrauli	7	NTPC	500	500	—	—	24-11-87
14.	Rihand	1	NTPC	500	500	—	—	31-3-88
	Sub-Total			**1530**	**1530**	**210**	**210**	
	Total Northern Region			1929.95	1919.95	**220**	**210**	
	WESTERN REGION							
	Hydro							
15.	Ukai LBC	1 & 2	Gujarat	5	5	—	—	8-12-87, 19-2-88
16.	Bargi	1 & 2	MP	90	45	45	—	30-3-88
17.	Bhira Tail Race	1	Maharashtra	40	40	—	—	29-3-88
18.	Pawana	1	Maharashtra	10	10	—	—	27-8-87(R)
19.	Vaitarna	1	-do-	1.5	1.5	—	—	21-9-87
	Sub-Total			**146.5**	**101.5**	**45**		
	Thermal							
20.	Wanakbori	6	Gujarat	210	210	—	—	18-11-87
21.	Sikka Replacement	1	Gujarat	120	120	–	—	26-3-88
22.	Parli	5	Maharashtra	210	210	—	—	31-12-87
23.	Korba	4 & 5	NTPC	500	1000	–	500	31-5-87, 25-3-88
24.	Vindhyachal	1 & 2	NTPC	420	210	210	—	10-10-87
	Sub—Total			**1460**	**1750**	**210**	**500**	
	Total Western Region			**1606.5**	**1851.5**	**255**	**500**	

1	2	3	4	5	6	7	8	9
SOUTHERN REGION								
Hydro								
25. mpad		2 & 3	A.P.	18	18	—	—	17-10-87, 28-3-88(R)
6. Kadamparai		2 ,3 & 4	TN	300	200	100	—	26-2-88, 30-3-88(R)
Lower Mettur		1, 2, 3, 4 5 & 7	T.N.	90	75	15	—	23-3-88(R) 26-12-87 (R) 30-3-88 (R) 12-12-87 (R) 4-1-88
28. Kundah V		1	T.N.	20	20	—	—	31-3-88(R)
		Sub-Total		**428**	**313**	**115**	—	
Thermal								
29. Mettur		2	T.N.	210	210	—	—	1-12-87
30. Neyveli SMC		1	N.L.C.	210	210	—	—	17-1-88
		Sub-Total		**420**	**420**	—	—	
		Total Southern Region		**848**	**733**	**115**	—	
EASTERN REGION								
Hydro								
31. Upper Kolab		1 & 2	Orissa	160	160	—	—	10-3-88, 29-3-88(R)
Sub-Total				**160**	**160**	—	—	
Thermal								
32. Farrakka		3	NTPC	210	210	—	—	6-8-87
33. Maithon		1	DVC	60	—	60	—	
		Sub-Total		**270**	**210**	**60**		
		Total : Eastern Region		**430**	**370**	**60**		
North Eastern Region								
Hydro								
34. Kopili		1 & 2	NEC	100	100	—	—	15-3-88 (R) 23-3-88
Sub-Total :				**100**	**100**	—	—	
Thermal								
35. Small Diesel (Manipur)				**2**	—	**2**		
		Sub-Total		2	—	**2**		
		Total : NE Region		**102**	100	**2**		
Total - All India		Hydro		1234.45	1064.45*	170	—	
		Thermal		3682	3910**	482	710	
		Total		**4916.45**	**4974.45**	**652**	**710**	
Grand Total inclusive of Mini/Nicro hydel projects and D.G. sets in Mizoram				**4916.45**	**4981.25**	**652**	**716.8**	

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*Excluding 4.835 MW of additional capacity of Mini/Micro hydel projects.

**Excluding 2 MW of D.G. Sets in Mizoram

(R)=Rolled

Annexure 7.4

Project slippages in 1987-88

Sl. No.	Name of the Scheme	Installed Capacity (MW)	Reasons
1	2	3	4
I. Hydel			
1.	Bargi Unit 2	45	Delay in erection of penstock gates and hoist mechanism, removal of masonary plug for the unit.
2.	Suratgarh Units 1 & 2	4	Civil works of diversion canal, Power House and erection of generating units delayed.
3.	Mangrol RMC Units 1, 2 & 3	6	
4.	Kadamparai PSS Unit 3	100	Delay in unit erection
5.	Lower Mettur	15	Delay in unit erection
	Sub-Total (Hydro)	**170**	
II. Thermal			
1.	Unchahar Unit 1	210	Delay in readiness of various inputs such as CW System, BCW System & auxiliary Boiler etc. Delay in supply & erection of C&I equipment.
2.	Vindhyachal Unit 2	210	Delay due to industrial relation problems.
3.	Maithon Gas Turbine Units 1 & 2	60	Delay in opening of letter of credit of main equipment.
4.	Diesel sets in Manipur	2	Delay in the receipt of sets.
	Sub-Total (Thermal)	**482**	
	Total	**652**	

Annexure 7.5

Commissioning Programme of Generating Units for 1988-89

Sl. No.	Name of the Project	Unit No.	State	Capacity (MW)	Expected date of commissioning
1	2	3	4	5	6
NORTHERN REGION					
Thermal					
1.	Panipat	5	Haryana	210.0	2/89
2.	Ropar Ext.	4	Punjab	210.0	12/88
3.	Kota Extn.		Rajasthan	210.0	10/88
4.	Tanda	2	U.P.	110.0	12/88
5.	Unchahar	1	U.P.	210.0	7/88
5.	Unchahar	2	U.P.	210.0	12/88
7.	Rajghat (DESU)		Delhi	67.5	12/88
8.	G.T.		J & K	25.0	12/88
	Sub-Total	8 Units		**1252.5MW**	
	Hydro :				
1.	Western Yamuna Canal	5 & 6	Haryana	16.0	12/88, 1/89
2.	Bhabha		H.P.	120.0	9/88, 10/88, 2/89
3.	UBDC	1	Punjab	15.0	1/89
4.	Mukerian PH II		Punjab	45.0	4/88, 4/88, 5/38
5.	Mukerian PH III		Punjab	39.0	11/88, 2/89
6.	Mahi Bajaj Sagar		Rajasthan	45.0	12/88
	Sub-Total	12 Units		**280.0**	
NUCLEAR					
1.	**Narora**	1	U.P.	235.0	10/88
	Sub-Total	1 Unit		235.0	
	TOTAL	21 Units		**1767.5 MW**	
WESTERN REGION					
Thermal					
1.	Sabarmati Replmt.		Gujarat	110.0	11/88
2.	Vindhyachal (NTPC)	2 & 3	M.P.	420.0	7/88, 12/88
3.	Korba STPS (NTPC)	6	M.P.	500.0	3/89
4.	Khaperkheda		Mah.	210.0	2/89
	Sub-Total	**5 Units**		**1240.0 MW**	
Hydro					
1.	Bargi	2	M.P.	45.0	6/88
2.	Kedana PSS	1	Gujarat	60.0	1/89
	Sub-Total	**2 Units**		**105.0 (MW)**	
	Total	**7 Units**		**1345.0 MW**	

Annexure 7.5 (contd,)

1	2	3	4	5	6
	SOUTHERN REGION				
	Thermal :				
1.	Mettur	3	Tamil Nadu	210.0	1/89
2.	Ramagundam (NTPC)	4	A.P.	500.0	7/88
	Sub-Total	**2 Units**		**710.0 MW**	
	Huydro				
1.	Lower Bhawani		Tamil Nadu	4.0	2/89, 2/89
2.	Vagai Dam Toe		-do-	6.0	2/89, 2/89
3.	Pykara		-do-	2.0	2/89
4.	Lower Mettur PH IV	1 & 2	-do-	30.0	2/89, 11/88
5.	Kadamparai	3	-do-	100.0	7/88
6.	Varahi		Karnataka	230.0	9/88, 2/89
	Sub-Total	10 Units		**372.0 MW**	
	Total	**12 Units**		**1082.0 MW**	
	EASTERN REGION				
	Thermal				
1.	Maithon GT	1 2 & 3	Bihar	90.0	7/88, 8/88, 8/88
	Sub-Total	**3 Units**		**90.0 MW**	
	Hydro :				
1.	Panchet Hill		Bihar	40.0	10/88
2.	Upper Kolab	3	Orissa	80.0	2/89
3.	Rengali Extn.		Orissa	50.0	2/89
	Sub-Total	**3 Units**		**170.0 MW**	
	Total	**6 Units**		**260.0 MW**	
	NORTH EASTERN REGION				
	Thermal				
1.	Diesel Sets.	1 & 2	Manipur	2.0	6/88, 6/88
2.	Chandrapur		Assam	30.0	8/88
	Sub-Total	**3 Units**		**32.0 MW**	
	Hydro :	**Nil**			
	Total	**3 Units**		**32.0 MW**	
	Total All India :				
	Thermal	**21 Units**		**3324.5 MW**	
	Hydro	**27 Units**		**927.0 MW**	
	Nuclear	**1 Unit**		**235.0 MW**	
		49 Units		**4486.5 MW**	
	Mini/Micro Hydel			**10.0 MW**	
				4496.5 MW	

Annexure 7.6

Programme of construction of 400 KV and 220 KV transmission lines during 1988-89

Sl. No.	Line Section	Total Length Ckt. Km.	Stringing Completed upto 1987-88 Ckt. km.	Balance stringing to be done Ckt. km.	Programme for 1988-89 Ckt. km.	Target Date of Completion	Executing Agency
1	2	3	4	5	6	7	8
490 KV							
Central Sector							
1.	Rihand-Kanpur, S/C	464	256	208	208	8/88	NTPC
2.	Kanpur-Ballabgarh, S/C	414	320	94	94	6/88	NTPC
3.	Bhillai-Chandrapur, D/C	686	164	522	522	12/88	NTPC
4.	Indore-Asoj, S/C (2nd ckt)	273	50	223	223	2/89	NTPC
5.	LILO of Muradnagar-Panipat at Dadri	59	...	59	59	12/88	NTPC
6.	Bangalore-Salem, S/C	181	145	36	36	12/88	NTPC
7.	Nagarjunsagar-Cuddapah II (2nd ckt)	239	72	167	167	12/88	NTPC
8.	Korba-Bhillai, S/C (3rd ckt)	211	...	211	50	89-90	NTPC
9.	Vindhyachal-Jabalpur, D/C	724	...	724	500	89-90	NTPC
10.	Rihand-Dadri HVDC.	817	...	817	300	89-90	NTPC
11.	Raichur-Munirabad, S/C	168	...	168	50	89-90	NTPC
12.	Auraiya-Kharal, D/C	200	...	200	35	89-90	NTPC
13.	Kharal Agra, D/C	200	...	200	30	89-90	NTPC
14.	Jaipur-Rengali, S/C	423	122	301	200	89-90	NHPC
	Total—Central Sector	5059	1129	3930	2474		
State Sector							
1.	Lonikhand-Kalwa, S/C	132	...	132	132	12/88	MSEB
2.	Dehar-Bhiwani, S/C	310	290	20	20	6/88	BCB
3.	Wanakbori-Nardipur, S/C 2nd ckt.	99	...	99	99	12/88	GEB
4.	Patratu-Tenughat-Biharshariff	250	...	250	99	89-90	BSEB
	Total State Sector	791	290	501	350		
	Total 400 KV	5850	1419	4431	2824		
220 KV							
Central Sector							
1.	Auraiya-Agra D/C	400	...	400	300	89-90	NTPC
2.	Anta-Bhilwara D/C	460	...	460	200	89-90	NTPC
3.	Kawas-Navsari D/C	110	...	110	45	89-90	NTPC
4.	Kawas-Walthon D/C	90	...	90	80	89-90	NTPC
5.	Phuntsholing-Birpara S/C.	40	...	40	40	9/88	NHPC
6.	Bokaro-Jamshedpur D/C	340	...	340	150	89-90	DVC
		1440	...	1440	815		

Annexure 7.6 (Contd.)

1	2	3	4	5	6		8
State Sector							
1.	Ballabgarh-Palwal, D/C	40	...	40	40	6/88	HSEB
2.	Khetri-Reengus, S/C	98	...	98	98	3/89	RESB
3.	Bhatala-Verpal, S/C	40	...	40	40	3/89	PSEB
4.	Ropar-Laltonkalan, D/C	182	93	89	89	6/88	PSEB
5.	Jagraon-Moga, D/C	70	52	18	18	6/88	PSEB
6.	Unchahar-Fatehpur, D/C	150	...	150	130	12/88	UPSEB
7.	NAPP-Simbholi, S/C	83	...	83	83	3/89	UPSEB
8.	NAPP-Khurja, D/C	120	...	120	65	89-90	UPSEB
9.	Khodri-Majri, S/C	35	...	35	35	3/89	HPSEB
10.	Rajghat-I.P. Station D/C	6	...	6	6	3/89	DESU
11.	LILO of Hissar-Dadri line at Bhiwani, S/C	35	...	35	35	9/88	BCB
12.	Bhiwani-Dadri, D/C	68	...	68	68	12/88	BCB
13.	Ukai-Achhalia S/C	82	...	82	82	9/88	GEB
14.	Jetpur-Keshod, S/C on D/C	70	...	70	70	3/89	GEB
15.	Keshod-Kodinar, S/C	65	...	65	65	12/88	GEB
16.	Malanpur-Mehgaon, S/C	30	...	30	30	3/89	MPEB
17.	Khaparkeda-Koradi, D/C	20	...	20	20	6/88	MSEB
18.	VTS-N' Sagar, Strg. of 2nd ckt.	137	...	137	137	3/89	APSEB
19.	Lower-Sileru-Bommur, D/C	264	40	224	120	89-90	APSEB
20.	Link lines to Varahi 2xD/C	20	...	20	20	12/88	KEB
21.	Ghanapur Shapurnagar D/C	75	68	7	7	6/88	APSEB
22.	Kadamparai-Udumalpet, S/C	49	...	49	49	9/88	TNEB
23.	Bhanjnagar-Chandaka, S/C on D/C	145	...	145	145	3/89	OSEB
24.	Salakati-Agia, D/C	130	123	7	7	6/88	ASEB
25.	Samaguri-Mariani, S/C	169	...	169	169	3/89	ASEB
28.	Longpi-Guwahati, D/C (Upto Khanapara)	188	162	26	25	6/88	ASEB
27.	Srisailam-Gooty D/C (2nd ckt)	100	83	17	17	6/88	APSEB
28.	Extn. at Kurnool	30	...	30	30	9/88	APSEB
	Total State Sector	2481	621	1860	1702		
Inter-State							
29.	Bhaba-Panchkula, D/C	398	312	86	86	12/88	HPSEB HSEB
30.	Korba-Rourkela, D/C	410	...	410	410	88-89	MPEB OSEB
31.	Nagjhari-Ponda, D/C	104	...	104	20	89-90	GOA KEB
32.	Kolhapur-Ponda, Strg. of 2nd ckt.	162	...	162	162	3/89	MSEB GOA
	Total Inter-State	1074	312	762	678		
	Grand Total	4995	933	4062	3195		

Break up of outlay for Annual Plan 1988-89 Power Sector

(Rs. Lakhs)

Sl. No.	States /UTs	GENERATION			R.&.M	T & D	Misc.	Total
		Ongoing	New Starts	Sub-total				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A. STATES								
1.	Andhra Pradesh	10580	3400	14080	350	5600	35	20055
2.	Arunachal Pradesh	55	475	530	80	300	10	920
3.	Assam	4218	327	4545	535	5550	122	10752
4.	Bihar	18416	10010	28426	1600	9500	95	39621
5.	Goa	0	55	55	0	665	10	730
6.	Gujarat	10568	11838	22506	650	9000	162	32318
7.	Haryana	7426	467	7893	887	8243	10	17033
8.	Himachal Pradesh	2480	320	2800	300	1840	75	5015
9.	Jammu & Kashmir	6310	100	6410	320	4400	180	11310
10.	Karnataka	10880	2520	13400	540	5910	80	19930
11.	Kerala	3400	265	3665	50	6075	50	9840
12.	Madhya Pradesh	3571	23144	26715	3551	19984	295	50545
13.	Maharashtra	15710	17245	32955	292	13545	300	47092
14.	Manipur	133	52	185	0	381	32	598
15.	Meghalaya	1900	0	1900	0	550	50	2500
16.	Mizoram	163	310	473	0	671	15	1159
17.	Nagaland	0	125	125	0	515	5	645
18.	Orissa	8999	6407	15406	750	4000	120	20276
19.	Punjab	24764	1600	26364	244	9749	40	36397
20.	Rajasthan	10882	1000	11882	300	6164	10	18356
21.	Sikkim	505	0	505	0	350	75	930
22.	Tamil Nadu	12502	17872	30374	3130	15000	230	43734
23.	Tripura	0	920	920	30	295	10	1255
24.	Uttar Pradesh	47442	2600	50042	1764	20833	750	73389
25.	West Bengal	18374	25	18399	866	6218	390	25873
	Total (STATES)	**219478**	**101077**	**320555**	**16239**	**155338**	**3151**	**495283**
B. Union Territories								
1.	A & N Islands	75	1458	1533	0	140	0	1673
2.	Chandigarh	0	0	0	0	791.50	0	792
3.	Dadra & Nagar Haveli	0	0	0	0	122.65	0	123
4.	Delhi	4800	500	5300	177	12163	450	18100
5.	Daman & Diu	0	0	0	0	143	0	143
6.	Lakshadweep	0	100	100	0	0	0	100
7.	Pondicherry	0	0	0	0	600	0	600
	Total (U.Ts)	**4875**	**2058**	**6933**	**177.00**	**13961.00**	**460**	**21531**
	Total (States & UTs.)	**224353**	**103135**	**327488**	**16416**	**169299**	**3611**	**516814**

Annexure 7.7—Contd.

Sl. No.	States UTs	GENERATION			R & M	T & D	Misc.	TOTAL
		Ongoing	New Starts	Sub-total				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
C.	**Central Sector**							
1.	Deptt. of Power (DOP)							
	(a) NTPC	150530	14887	165517	1566	52317	1000	220400
	(b) NHPC.	35650	5800	41450	0	4450	600	46500
	(c) CEA	0	0	0	0	0	1267	1267
	(d) Inter State	0	0	0	0	2700	0	2700
	(e) R & M	0	0	0	6500	0	0	6500
	(f) Misc.	6796	12000	18796	1000	0	5907	25703
	(g) Grants to REC-Jaldhara, Kutir Jyoti.	0	0	0	0	0	3300	3300
	Sub-Total (DOP)	**193076**	**32637**	**225763**	**9066**	**59467**	**12074**	**306370**
2.	Deptt. of Atomic Energy	16800	27826	44526	0	0	2274	46900
3.	Damodar Valley Corporation	5984	6841	12825	510	2026	639	16000
4.	Neyveli Lignite Corporation	21000	1030	22030	870	4100	0	27000
	Total (Central Sector)	**236860**	**68334**	**305244**	**10446**	**65593**	**14937**	**396270**
	ALL INDIA	**461213**	**171519**	**632732**	**26862**	**234892**	**18598**	**913084**
	NEC	**2701**	**1150**	**3851**	**0**	**1112**	**150**	**5113**

Annexure—7.8

Schemewise detials of Outlay and expenditure for Generation Projects—States/UTs.

(Rs. Lakhs)

Sl. No.	Name of Scheme (Capacity in MW)	1985-86 Actual	1986-87 Actual	1987-88 Approved	1987-88 Anticipated	1988-89 Approved
1	2	3	4	5	6	7
	ANDHRA PRADESH					
1.	Srisailam HES Stage-I (4×110)	909.00	1533.00	1528.00	1528.00	1415.00
2.	Vijayawada TPS Stage-I (2×210)	327.00	72.00	—	—	—
3.	Nagarjunasagar HES Stage-II (3×100)	455.00	256.00	200.00	150.00	25.00
4.	Srisailam HES Stage-II (3×110)	831.00	304.00	200.00	200.00	25.00
5.	Pochampad HES (3×9)	956.00	608.00	100.00	270.00	90.00
6.	A.P. Power House at Balimela (2×30)	210.00	50.00	300.00	150.00	25.00
7.	Penna Ahobilam HES (2×10)	50.00	216.00	25.00	400.00	200.00
8.	Nagarjunasagar LBC HES (2×30)	101.00	108.00	25.00	600.00	1400.00
9.	Nagarjunasagar RBC 3rd Unit (30)	17.00	14.00	25.00	140.00	600.00
10.	Vijayawada TPS Stage-II (2×210)	3763.00	5345.00	7200.00	10762.00	7500.00
11.	Mini/Small HE Schemes	90.00	139.00	25.00	103.00	200.00
12.	Srisailam LB HES (9×110)	—	—	—	500.00	500.00
13.	Upper Sileru HES Stage-II (2×60)	—	—	—	—	100.00
14.	Muddanur TPS (2×210)	—	50.00	900.00	200.00	1000.00
15.	Gas Based TPS (3×33)	—	—	—	600.00	1000.00
16.	Other Schemes	—	50.00	—	200.00	—
	Total	7709.00	8745.00	10528.00	15808.00	14080.00
	ARUNACHAL PRADESH					
1.	Ganga (2×250)	0	0	1	9	1
2.	Miechuka (2×50)	4	18	10	10	20
3.	Meko (2×250)	20	0	1	1	1
4.	Ego—ich (4×100)	30	37	10	10	6
5.	Sissiri (3×250)	52	24	7	6	1
6.	Deopani (3×250)	58	51	7	7	3
7.	Ampani (3×100)	11	23	10	10	10
8.	Tafragram (2×250)	0	0	5	1	12
9.	Tuling (2×50)	14	6	0	0	1
10.	Tago (3×1500)	0	83	200	170	200
11.	Sessa (3×500)	2	27	60	60	60
12.	Diesel Stations	5	71	135	85	150
13.	Other Schemes	0	0	0	0	65
	Total	196	340	446	369	530
	ASSAM					
1.	Bongaingaon TPS Stage-II (2×60)	1783	937	840	500	454
2.	Lakwa TPS Extn. (1×15 MW)	146	202	202	202	0

Annexure 7.8—(Contd.)

(Rs. Lakhs)

Sl. No.	Name of Scheme (Capacity in MW)		1985-86 Actual	1986-87 Actual	1987-88 Approved	1987-88 Anticipated	1988-89 Approved
1	2		3	4	5	6	8
3.	Namrup Waste Heat Plant (1×22 MW)		115	89	50	150	266
4.	Chandrapur TPS Extn. (1×30)		1326	352	219	219	98
5.	Lakwa TPS Phase II (4×15)		0	73	2019	1250	1500
6.	Karbi Langpi HPP (2×50 MW)		1040	1004	1000	1000	1000
7.	Dhansiri HEP (15×1.33 MW)		0	69	50	150	700
8.	Lakwa WHP Stage-I (1×22)		—	—	—	—	200
9.	Gas Based PP—360 MW		—	—	—	—	127
10.	Dalaima Mini HEP (2×2MW)		6	11	105	105	200
	Total		4416	2737	4485	3476	4545
	BIHAR						
1.	Subernrekha HEP		144	15	89	43	86
2.	Patratu TPS Stage-IV 9th and 10th units		1821	991	600	600	800
3.	Barauni TPS 6th and 7th units		1114	491	750	750	250
4.	Muzaffarpur TPS		2842	1443	1800	1800	200
5.	Tenughat TPS Stage-I		2413	5594	10400	10000	14600
6.	Eastern Gandak HEP		213.6	945.6	1000	1585	580
7.	North Koel HEP		342.7	727.28	1235	990	600
8.	Sone Western Link Canal HEP		249.89	520.65	764	600	700
9.	Sone Eastern Link Canal HEP		102.58	202.82	348	172	500
10.	Chandil Dam Left Bank Canal HEP		—	—	80	108	75
11.	Tenu Bokaro Link Canal HEP		—	—	28	—	25
12.	Tenughat TPS Stage-II		—	—	5000	..	10000
13.	Others		—	—	10	10	10
	Total		9242.77	10930.30	22104.00	16658.00	28426.00
	GOA						
	New Schemes						
1.	Anjunem (3×400 KW)		0.15	1.44	10.00	15.00	72.00	50.00
2.	Selaulim (1×2000 KW)			1.07	3.00	3.00	25.00	5.00
3.	Arvalom Micro Hydel Electric Project	250.00	1.09	0.07				
4.	Dudhsagar (3×10 MW)	(LS)			2.00	2.00	7.00	
5.	Other Schemes (Including T & P and D&A)					8.85	15.63	
	TOTAL	250.00	1.24	2.58	15.00	28.85	119.63	55.00

Annexure 7.6—(Contd.)

Name of the Scheme (Capacity in MW)	1985-86	1986-87	1987-88		1988-89
	Actual	Actual	Apprd.	Antici.	Apprd.
GUJARAT					
(a) Completed Schemes					
1. Wanakbori (T) (3×210 MW)	303	97	100	100	111
2. Ukai V (T) (1×210 MW)	333	198	0		
Sub-Total (a)	636	295	100	100	111
(b) Approved/Ongoing					
1. Kadana I (H) (2×60 MW)	984	742	1300	1000	1500
2. Kadana II (H) (2×60 MW)	0	0	0	300	800
3. Ukai LBC (H) (2×2 .5 MW)	91	95	55	55	57
4. Wanakbori Ext. (T) (3×210 MW)	4397	3399	2200	2200	2000
5. Lignite Based Kutch (2×70 MW)	1608	3234	4400	3800	3000
6. Sikka Replacement (T) (1×120 MW)	3028	3210	2200	2200	1000
7. Gandhi nagar Ext. U-III (T) (1×210 MW)	2222	4647	7000	6363	6000
8. Gandhinagar Ext. U.IV (T) (1×210 MW)	—		1000	1483	4701
9. A.E. Co. Extn. (1×110 MW)	350	1000	174	1350	
10. Sikka Ext. U-II (T) (1×120 MW)	25			400	1000
Sub-Total (b)	12705	16327	18329	19151	20058
(c) Other New Schemes	436	303	1615	1519	2337
Total :	13777	16925	20044	20770	22506
HARYANA					
(a) SCHEMES COMPLETED ON 31-3-1985					
(1) Beas Unit I (H)	—86	—59	—78	—63	—104
(2) Beas Unit II(H)	—2	7	0	0	—2
(3) Dehar Extn. (H)	7	12	8	9	4
(4) Pong Extn. (H)	—1	416	0	0	0
(5) Faridabad (T) (1×60)	318	73	237	288	197
(6) Panipat I(T) (2×110)	0	269	0	0	0

Annexure 7.8—(Contd)

(Rs. Lakhs)

Sl. No.	Name of Scheme (Capacity in MW)	1985-86 Actual	1986-87 Actual	1987-88 Approved	1987-88 Anticipated	1988-89 Approved
1	2	3	4	5	6	7
	Sub Total (a)	236	718	167	234	95
(b)	**APPROVED/ONGOING FOR 7TH PLAN**					
(1)	**Panipat II(T) (2×110)**	1829	1030	1440	1882	1000
(2)	**Panipat III(T) (1×210)**	3379	3324	6238	5835	5700 (856)
(3)	**W.Y.C.I.(H) (6×8)**	1045	1095	1100	1100	631
	Sub Total—(b)	6253	5449	8778	8817	7331
(c)	**NEW SCHEMES**					
(i)	**APPROVED**					
(1)	Yamunanagar (T) (2×210)	311	183	2200	2200	357
(2)	Dadupur Mini(H) (4×2.5)	0	0	2	2	10
	Sub Total—(i)	311	183	2202	2202	367
(ii)	**UNAPPROVED**	1	0	1000	210	100
	Sub Total—(c)	312	183	3202	2412	467
	Total	6801	6350	12147	11463	789
	HIMACHAL PRADESH					
a.	**SCHEMES COMPLETED ON 31,3,85**	—6	36	0	0	0
b.	**APPROVED/ONGOING**					
	I 7th Plan					
1.	**Rongtong(H) (4x.5)**	315	289	30	30	40
2.	**Bhabha(H) (3x40)**	3165	3159	1630	1630	600
3.	**Andhra(H) (3x5.65)**	1109	1239	300	300	100
4.	**Thirot(H) (3x1.5)**	58	216	300	300	600 (150)
	Sub Total(i)	4647	4883	2260	2260	1340
II.	**OTHERS**					
1.	**Baner(H) (2x3)**	20	16	50	50	300
2.	**Gaj(H) (3x3.5)**	18	18	250	150	300
	Sub,Total(11)	38	34	300	200	600
	Sub Total (b)	4685	4917	2560	2460	1940
C.	**NEW SCHEMES**					
	APPROVED					
1.	**Larji (H) (3x42)**	0	23	170	170	520
2.	**Ghanvi (H) (3x7.5)**	0	0		0	20
	Sub Total	0	23	170	170	540
	UNAPPROVED	173	198	100	300	320
	Sub Total (c)	173	221	270	470	860
	TOTAL	4852	5174	2830	2930	2800

Annexure 7.8 (Contd.)

(Rs. Lakhs)

Sl. No.	Name of the Scheme (Capacity in MW)	1985-86 Actuals	1986-87 Actual	1987-88		1988-89
				Appd.	Ant.	Appd.
1	2	3	4	5	6	7
	JAMMU & KASHMIR					
	(a) SCHEMES COMPLETED ON 31-3-85					
	(1) Lower Jhelum (H) (3 × 35)	0	0	0	0	0
	(2) Chenani Tunnels	18	1	0	0	0
	Sub Total—(a)	18	1	0	0	0
	(b) APPROVED/ONGOING FOR 7TH PLAN					
	(1) Upper Sindh II(H) (2 × 35)	1963	1900	2400	2200	2500 (300)
	(2) Karnah (H) (2 × 1)	116	310	400	250	160
	Sub Total—(b)	2080	2210	2800	2450	2660
	(c) NES SCHEMES					
	(i) APPROVED					
	(1) Pahalgam (H) (2 × 1.5)	22	50	200	150	250
	(2) Gas Turb. Sets (3 × 25)	0	0	818	1000	3400
	Sub Total—(i)	22	50	1018	1150	3650
	(ii) UNAPPROVED	91	187	0	375	100
	Sub Total—(c)	113	237	1018	1525	3750
	TOTAL	2211	2448	3818	3975	6410
	KARNATAKA					
1.	Linganamaki DHP	45	20	45	—	—
2.	Kalinadi HEP Stage-I (6x135+2x 50)	2091	1163	500	500	200
3.	Raichur TPS Stage-I (2x210)	3833	2646	500	500	100
4.	Varhi HEP (2 × 115+2 × 4.5)	2228	2765	4000	3500	900
5.	Ghatprabha HEP (2 × 16)	51	146	600	800	1300
6.	Small Hydels	12	62	289	289	380
7.	Diesel Sets (77.7)	—	—	1500	1500	500
8.	Raichur TPP Stage-II 3rd Unit (210 MW)	11	914	2500	2500	5000
9.	Kalinadi HEP State-II (3 × 40+ 3 × 50)	136	118	3000	1600	3000
10.	Raichur TPP 4th Unit (210)	—	—	—	369	900
11.	Sharavatty TRP (4 × 60)	—	—	631	200	600
12.	Others Schemes	25	23	85	60	520
	Total	8432	7857	13650	18818	13400

Annexure 7 8 (Contd)

(Rs, Lakhs)

Sl. No.	Name of Scheme (Capacity in MW)	1985-86 Actuals	1986-87 Actuals	1987-1988 Approved	1987-1988 Anticipated	1988-89 Approved
1	2	3	4	5	6	7
	KERALA					
1.	Idamalayar (2 × 37.5) (Power Part)	—	293	110	228	15
2.	Iddukki Stage-II (3 × 130) and Azhutha Diversion)	831	433	137	133	275
3.	Kakkad Hydel (2 × 25)	437	1045	1000	900	1000
4.	Kallada Hydel (2 × 7.5)	342	123	360	270	250
5.	LowerPeriyar Hydel (3 × 60)	263	586	2000	1500	1800
6.	Puyankutty HEP Stage-I (2 × 120)	—	55	250	100	25
7.	Others schemes	257	175	697	447	300
	Total	**2130**	**2710**	**4554**	**3578**	**3665**
	MADHYA PRADESH					
A.	**Completed Schemes**					
1.	Amarkantak. (Additions of capital Nature)	0	160	250	270	220
2.	Korba East (Additions of capital Nature)	98	20	400	400	393
3.	Satpura VIII & IX Unit	797	1214	1005	1005	822
4.	Korba West I & II Unit	509	300	370	320	476
5.	Gandhisagar Hydel Stn.			20	20	0
	Sub-Total (A)	**1404**	**1694**	**2045**	**2015**	**1911**
B.	**Approved/Ongoing Schemes**					
(a)	**Thermal**					
1.	Korba West III & IV (2 × 210 MW)	2568	1296	1650	1850	1050
2.	Sanjay Gandhi TPS Birsinghpur (2 × 210 MW)	1278	2165	7000	6000	6000
	Sub-Total (a)	**3846**	**3461**	**8650**	**7850**	**7050**
(b)	**Hydel**					
1.	Pench (MP share) (2/3 of (2 × 80) i.e. 107 MW)	434	459	216	492	389
2.	Bansagar Tons (3 × 105 + 2 × 15 + 3 × 20)	4408	6267	8000	6900	6500
3.	Bargi (Unapproved) (2 × 45MW)	1542	1181	556	712	121
4.	Hasdeo Bango (3 × 40 MW)	700	835	400	400	900

Annexure 7.8 (*Contd.*)

(Rs. Lakhs)

Name of the Scheme (Capacity in MW)		1985-86	1986-87	1987-88		1988-89
		Actual	Actual	Apprd.	Anti.	Apprd.
5. Indirasarovar Bodhghat (4×125 MW)		835	648	2000	1100	500
6. Birsinghpur HEP (1×20 MW)				100	100	700
7. Mini/Micro Hydel (Appd.)		0	32	460	248	644
Sub-Total (b)		7919	9422	11732	9952	9754
Total Ongoing Generation (B)		11765	12883	20382	17802	16804
(c) Other New Schemes		0	0	400	402	1000
Total General Schemes (A+B+C)		13169	14577	22827	20219	19715
II. NARMADA PROJECTS		1672	1303	5296	5133	7000
Total (Gen. Incld. Narmada Projects)		14841	15880	28123	25352	26715
MAHARASHTRA						
A. HYDRO						
(a) Schemes completed as on 31-03-85						
1. Koyna stage I & II (4×65—4x75 MW)	198.50	15	29	56	59	53
2. Veitarna HEP (1×60 MW)	70	38	59	45	45	37
3. Bhatgar & Vir HEP (1×16+2x4.5 MW)	24	6	15	31	31	1
4. Koyna HEP stage III (4×80 MW)	791	123	169	200	197	159
5. Koyna DPH (2×20 MW)	1.35					
6. Paithon HEP (1×12 MW)	271.15	99	99	43	43	1.
Sub-Total (a)	1356	281	371	375	375	251
(b) Approved & On-going schemes for benefit during 7th/8th Plan						
1. Pench (Maha share) 1/3 of (2×80) i.e. 53 MW	1	812	505	0	0	0
2. Tillari HEP (1×60 MW)	657	708	557	0	0	0
3. Bhira Tail Race (2×40 MW)	2245	659	800	370	533	210
4. Bhandaradara P.H. I (1×10 MW)	290	264	130	15	15	1
5. Bhandaradara P.H. II (1×34 MW)	2767	12	170	335 (315)	535 (215)	790 (440)
6. Pawana HEP (1×10 MW)	609	256	198	100	205	50

Annexure 7.8 (*Contd.*)

(Rs. Lakhs)

Name of the Scheme (Capacity in MW)	1985-86	1986-87	1987-88		1988-89
	Actual	Actual	Apprd.	Anti.	Apprd.
7. Vaitarna Dam Toe (1x1.5 MW)	59	83	17	26	8
8. Bhatsa HEP (1 × 15 MW	104	409	365 (245)	223	242
9. Khadakwasla (2 × 8 MW)	198	621	514 (319)	412	315
10. Ujjani HEP (1 × 12 MW)	65	75	450	450	1140
Sub-Total (b)	**3137**	**3548**	**2366**	**2389**	**2756**
(c) New Approved Schemes for benefits during 7th/8th Plan					
1. Yoteshawar HEP (1 × 750 MW)	4	10	1	7.50	2
2. Surya HEP (1 × 5 MW)	46	63	250	235 (85)	257 (183)
3. Manikdoh HEP (1 × 6 MW)	16	42	190	147 (64)	280 (210)
4. Kanher HEP (1 × 4 MW)	9	32	130	130 (70)	202 (120)
5. Dhom HEP (2 × 1 MW)	7	19	84	47	178
6. Dinbhe HEP (1 × 5 MW)	30	83	150	125 (25)	257 (213)
7. Warna HEP (2 × 8 MW)	134	74	220	350 (250)	570 (246)
8. Koyna HEP Stage IV* (4×250 MW)	48	76	751	751	754
9. Terwanmedhe HEP (1 × 200KW)					
10. Surya RBC Drop HEP (1 × 750 KW)		6 (LS)	30 (LS)	11 (LS)	50 (LS)
11. Dudhganga HEP (2 × 12 MW)	305	317	0	264.50 (200)	825 (678
Sub-Total (c)	**598**	**722**	**1806**	**2068**	**3375**
(d) New Schemes (Unapproved)	**1043**	**862**	**2776**	**2885**	**2052**
Total HYDRO (A)	**5059**	**5503**	**7323**	**7717**	**8434**

NOTE : * Koyna HEP St. IV was Janctioned by Plg. Commission for 6x125 MW The Scheme is likely to be changed to 4x250 MW capacity.

Name of the Scheme (Capacity in MW)	1985-86	1986-87	1987-88 Apprd.	1987-88 Anti.	1988-89 Apprd.
B. THERMAL					
(a) Schemes completed as on 31-3-85					
1. Koradi TPS U-5, 6 & 7 (1 × 200 + 2 × 210 MW)	636	465	75	200	5
2. Nasik Unit 3 (1 × 210 MW)	539	1384	100	300	0

Annexure 7.8 (*Contd.*)
(Rs. Lakhs)

Name of the Scheme (Capacity in MW)	1985-86	1986-87	1987-88		1988-89
	Actual	Actual	Apprd.	Anti.	Apprd.
3. Nasik Units 4 & 5 (2×210 MW)	243	257	0	10	0
4. Bhusawal Unit 3 (1×210 MW).	547	379	125	300	0
5. Chandrapur U-1 & 2 (2×210 MW)	57	568		280	0
6. Parli TPS Unit-4 (1×210 MW)	1302	267	170	480	50
Sub-Total (a)	3324	3320	470	1570	55
(b) Approved & ongoing schemes for benefits during 7th/8th Plan					
1. Chandrapur Units 3 & 4 (2×210 MW)	3064	1478	100	800	243
2. Chandrapur Units 5 & 6 (2×500 MW).	3940	1583	8000 (4500)	6500 (4500)	9000 (7190)
3. G.T. Ext. U-5, 6 & 7 (3×108 MW)	1469	170		30	0
3 G.T. Ext. Unit-8 (1×108 MW)	2761	77		30	0
4. Khaperkheda Units 1 &2 (2×210 MW)	2064	9403	11240 (9500)	8000 (6000)	12600 (10350)
5. Parli Unit 5. (1×210 MW)	3064	5432	4700 (770)	4700	1000 (400)
6. Uran WH Recovery Plant Unit I (1×120 MW)					500
7. Uran WH Recovery Plant Unit 2 (1×120 MW)					
Sub-Total (b)	16362	18143	24040	0060	23343
(c) Other New Schemes (Unapproved).	**117**	**182**	**630**	**570**	**1123**
Total THERMAL (B).	**19803**	**21645**	**25140**	**2200**	**24521**
TOTAL (THERMAL+HYDRO)	**24862**	**27148**	**32463**	**29917**	**32953**
MANIPUR					
1. Nungshangkhong	31	12	...	2	0
2. Lokchao Hydel (2x200 KW)	37	38	1	5	0
3. Booning Hydel (2x500 KW)	15	40	24	24	40

Annexure 7.8 (Contd.)

(Rs. Lakhs)

Sl. No.	Name of the Scheme (Capacity in MW)	1985-86 Actual	1986-87 Actual	1987-88 Approved	1987-88 Anticipated	1988-89 Approved
1	2	3	4	5	6	7
4.	Keithelmanbi Hydel (2×200—2×100 KW)	14	...	30	...	...
5.	Gelnel Hydel (2×200)	35	28	1	15	40
6.	Leimakhong HEP Stage-III (2×500 KW)	35	40	30	30	25
7.	Replacement of G.D. sets by 2 MW D.G. set of Imphal P.H.	31	12	50	50	28
8.	Aug. of Diesel P.H. Distt. and Sub. Div. HQPs	0	4	17	17	10
9	Khuga Hydel (3×500 KW).	...	...	...	...	1
10.	Maklong (800 KW)	11	31	...	10	30
11.	Others Schemes	...	...	...	...	11
	Total	**212**	**205**	**153**	**153**	**185**
	MEGHALAYA					
1.	Umium Umtru Stage-IV	829	1397	1678	1680	1900
	MIZORAM					
A.	**Completed Schemes**					
	(i) Serlui Micro Hydel (2×500—1×250KW)	5.82				
	(ii) 5.1 MW diesel scheme.	12.16	4.75			
	(iii) Diesel schemes at L Darlawn. Champhai & Biate.	5.00				
	(iv) Other Diesel schemes	53.00	2.80			
	Sub Total 'A'	**75.98**	**7.55**			
B.	**Appd. & congoing schemes**					
	(i) Khawiva mini Hydel (1.1 MW)	21.09	46.00	82.00	82.00	51.00
	(ii) Tuirivang mini Hydel (0.30 MW)	18.45	34.70	32.00	105.00	22.00
	(iii) Tuisumpui Hydel (0.3)			49.00		40.00
	(iv) Tlipui Hydel					50.00
	Sub Total 'B'	**39.54**	**80.70**	**163.00**	**187.00**	**163.00**
C.	**New Schemes**					
(a)	**Hydro**					
	(i) Tuitlawk Hydel (0.5)					
	(ii) Teirei Hydel (0.30)					
	(iii) Munthilui Hydel (0.325)					
	(vi) Maicham Hydel (2×5)					0.00
	(v) Serlui-B Hydel (6MW).					50.00
(b)	**Diesel Station**					0.00
	(i) 8.8 MW Diesel Generation		70.00	80.00	180.00	260.00
	Sub Total 'C'	**0.00**	**70.00**	**80.00**	**180.00**	**310.00**
	Total	**115.52**	**158.25**	**243.00**	**367.00**	**473.00**

Annexure 7.8 (Contd.)

(Rs. Lakhs)

Sl. No.	Name of the Schemes (Capacity in MW)	1985-86 Actual	1986-87 Actual	1987-88		1988-89 Approved
				Approved	Anticipated	
1	2	3	4	5	6	7
	NAGALAND					
1.	Dikhu Micro Hydel	65	150	78	93	0
2.	Gunho (2×20 KW)	...	...	...	...	6
3.	Qhekh (2×40 KW)	...	...	...	...	9
4.	Dzulad (2×250 KW)	...	...	...	...	40
5.	Tsutha (3×350 KW)	...	...	...	...	60
6.	Likim (3×50 KW)	...	...	...	...	10
		65	**150**	**78**	**93**	**125**
	ORISSA					
1.	Rengali HEP St. I	865	537	450	825	584
2.	Upper Kolab HEP Stage I	1265	1971	1645	1495	1115
3.	Upper Indravati HEP	2065	3331	5730	5730	4500
4.	Hirakud 7th Unit	506	445	500	500	500
5.	Potteru Small Hydel	...	...	50	50	100
6.	Upper Kolab 4th Unit	...	...	150	150	700
7.	Rengali Stage II	100	954	800	950	1500
8.	Ib Valley TPS	38	200	2500	2500	5810
9.	Others	13	4	23	6	7
	Total	**4869**	**7441**	**11848**	**12206**	**14816**
	PUNJAB					
	(a) Scheme completed on 31-3-1985					
1.	Beas I (H)	—129	? !	—117	—117	! !
2.	Beas I Extn. (H)	11	! —77	12	12	! —146
3.	Beas II (H)	—3	! !	0	0	! !
4.	Beas II Extn. (H)	—2	! !	0	0	!
5.	GNDTP II	71	0	0	0	0
6.	Shanon Ren. Extn.	—2	0	0	0	0
7.	Ropar I (T) (2×210)	1515		500	500	70
8.	Anandpur Shaib (H) (4×33.5)	1095	572	100	100	0
	Sub Total : (a)	**2556**	**495**	**495**	**495**	—76
	(b) Approved/On-going					
	(i) 7th Plan					
1.	Mukerian (H)* (6×15 _6×19.5)	4703	7635	8000	8000	3000
2.	Ropar II (T) (2×210)	4200	10744	15000	15000	8000 (3500)

Annexure 7.8 contd.

(Rs. Lakhs)

Sl. No.	Name of the Scheme (Capacity in MW)	1985-86 Actual	1986-87 Actual	1987-88 Appd. (Provisional)	1987-88 Ant.	1988-89 Appd.
3.	UBDC II (H) (3×15)	248	265	$		1600 (400)
4.	Micro Hydels.	290	234	400	200	240
	Sub Total : (1)	9441	18878	23400	23200	12840
	(i) Others					
	Thein Dam M.P.P. (4x150)	7877	10000	12000	12000	12000 (1100)
	Sub Total (b)	**17318**	**28878**	**35400**	**35200**	**24840**
	(c) New Schemes (Unapproved)	26	6	500	1000	1600
	Total	**19900**	**29379**	**36395**	36695	26364

*Unapproved

$included in provis on for Thein Dam Project

$includes provision for Ropar TPB St I

RAJASTHAN

Sl. No.	Name of the Scheme (Capacity in MW)	1985-86 Actual	1986-87 Actual	1987-88 Appd. (Provisional)	1987-88 Ant.	1988-89 Appd.
	a. Schemes completed on 31-3-85					
1.	Beas I (H			—48		
2.	Beas I Extn. (H)			4		
3.	Beas II (H)	—64	—38	0	—42	—68
4.	Beas II Extn. (H)			0		
	Sub Total (a)	—64	—38	—44	—42	—68
	b. Approved/Ongoing Schemes for 7th Plan					
1.	Mahi (H) (2×25+2×45)	1864	2908	2200	2200	2400 (100)
2.	Kota II (T) (2×210)	6000	8507	10900	10800	7500 (2200)
3.	Annoopgarh (H) (6×1.5)	200			380	
4.	Suratgarh (H) (2×2)				300	
5.	Mangarol (H) (3×2)				275	
6.	Charanwala (H) (1×2)	100	503	1200	10	1000
7.	Jakham (H) (2×4.5)				25	
8.	Pugal (H) (1.5—0.35)				100	
9.	Ramgarh Gas (1×3)	0	25	10	50	40
	Sub Total (b)	8164	11943	14310	14140	10940

Annexure 7.8 (*contd*)

(Rs. Lakhs)

Sl. No.	Name of the Scheme Capacity in MW	1985-86 Actual	1986-87 Actual	1987-88 Appd	1987-88 Anti.	1988-89 Appd.
c.	Approved new schemes					
1.	Palana Lignite (T)	50	...	10	50	10
2.	Birsalpur (H) (0.91)	!	!	!	!	!
3.	Etawa (H) (0.5)	!	!	!	!	!
4.	RMC Mahi-I(2*.4)	included in lum sum provision indicated above				
5.	RMC Mahi-II (1*0.165)				110	*
6.	Nachna (H) (1*0.175)	!	!	!	!	!
7.	Khara (H) (1*0.125)	!	!	!	!	!
8.	Jaluwala (H) (0.9)	!	!	!	!	!
9.	Phulasar (H) (1*0.280)	!	!	!	!	!
	Sub Total (i)	**50**	**0**	**10**	**160**	**10**
ii.	New Schemes (Unappd.)	0	0	200	200	1300
	Sub Total (c)	**50**	**0**	**210**	**360**	**1310**
	Total	**8150**	**11905**	**14476**	**14458**	**12182**
	SIKKIM					
1.	Rimb HEP St. II	54.65	35.79	45	45	35
2.	Rongnichu HEP St. II	141.41	134.8	150	150	145
3.	Mayong HEP	—	6.03	40	40	125
4.	Upper Rongnichu HEP	—	7.88	35	35	175
5.	Others	7.85	24.85	22	22	45
	Total	203.91	209.05	292	292	525
	TAMIL NADU					
1.	Servalar Hydel (1 × 20)	402	210	98	98	—
2.	Kadamparai Hydel (4 × 100)	2558	1597	550	1119	211
3.	Lower Mettur Hydel (4 × 2 × 15)	2300	1507	1450	1300	600
4.	Kundah V Add. Unit(20	201	533	307	350	(—)102
5.	Pykara Hydel (1 × 2)	16	19	358	258	126
6.	Lower Bhawani Hydel (4 × 2)	16	43	1208	1008	320
7.	Vaigai Hydel (2 × 3)	12	37	831	631	240
8.	Mettur TPS State-I (2 × 210)	12601	7600	1036	1036	107
9.	Metttur TPS State-II (2 × 210)	2001	6500	11499	11499	11000
10.	Tuticorin TPS State-III (2 × 210)	1171	3501	3600	3600	9000
11.	North Madras TPS (3 × 210)	144	560	3500	3500	8000
12.	Other Schemes	29	11	175	150	872
	Total :	**21451**	**22118**	**24612**	**24549**	**30374**

*included in provision for ongoing Microhydel Schemes.

Annexure 7.3 (contd)

((Rs. lakhs)

Sl. No.	Name of Scheme (Capacity in MW)	1985-86	1986-87	1987-88		1988-89
		Actual	Actual	Approved	Anticipated	Approved
	TRIPURA					
1.	Maharani Micro Hydel	49	23	1	1	...
2.	Baramura Gas Turbines (2 x 5 MW)	485	70	1	1	...
3.	2 x 5 MW G.T.s at Rokhia	—	136	520	1000	900
4.	Rambhadra Micro Hydel (2 x 500 KW)	—	1	11	25	20
5.	Waste Heat Recovery Project	—	1	1	1	0
		534	**231**	**534**	**1028**	**920**
	UTTAR PRADESH					
	(a) Scheme completed on 31,3,1985					
1.	Garhwarl-Chilla (H) (4 x 36)	148	204	25	25	0
2.	Yamuna II (H) (4*60+4*30)	63	229	0	0	0
3.	Maneri Bhali-I (H) (3*30)	419	513	950	750	150
4.	Obra II & III (T) (3*100+5 x 200)	794	1048	856	656	100
5.	Panki Extn. (T) (2*110)	215	204	275	175	100
6.	Harduaganj 'C' (2*60+1*110)	498	697	546	346	100
7.	Paricha (T) (2*110)	1232	546	436	336	392
	Sub Total : (a)	3369	3441	3088	2288	842
	(b) Approved/Ongoing Schemes					
	i. 7th Plan					
1.	Maneri Bhali-II (H) (4*76)	2640	1811	1500	1500	1200
2.	Anppara 'A' (T) (3*210)	7776	3964	3800	3800	2300
3.	Tanda (T) (4*110)	2816	4773	7000	7000	(100) 6000
4.	Unchahar (T) (2*210)	11653	13761	5000	5000	(800) 2500
	Sub Total : (i)	24885	24309	17300	17300	(100) 12000
	(ii) Others					
1.	Anpara 'B' (T) (2*500)	41	69	25650	9000	31000
2.	Tehri Complex (4*250)	1551	1914	2300	100	100
3.	Lakhwar Vyasi MPP (3*100+2*60)	452	634	1000	1000	1400
4.	Vishnu Prayag (H) (4*120)	132	172	100	100	(260) 160
	Sub Total : (ii)	2176	2789	29050	10200	32600
	Sub Total : (b)	27061	27098	46350	27500	44600
	(c) New Schemes					
	(i) Approved Srinagar Composite					
	Srinagar HEP (6*55)		227	1000	1000	1000
	Installation of two Steam Boilers at Harduaganj TPS		0	0	0	500
	Additional CHP at Obra 'B' TPS		0	0	500	500
	Associated Trnsmission System for Power evacuation		0	0	0	0
	Training and consultancy		0	0	0	0
	Total Srinagar composite	0	227	1000	1500	2000

Annexure 7.8 (contd.)

(*Rs.* lakhs)

Name of Scheme apacity in MW	1985-86	1986-87	1987-88		1988-89
	Actual	Actual	Approved	Anticipated	Approved
(ii) Un-approved					
1. Khara (H) (3×24)	1752	2507	3500	3500	2500
2. Palamaneri (H) (4×93)	!	!	!	!	(250)
3. Loharinagpala (H) (3×94)	Nil	Nil	650	Nil	Ni
4. Rajghat (H) (3x15)	!	!	!	!	!
5. Unchahar Extn. (T) (3×2)	!	!	!	300	100
Sub Total : (ii)	**1752**	**2507**	**4150**	**3800**	**2600**
Sub Total : (c)	**1752**	**2734**	**5150**	**5300**	**4600**
Total	**32182**	**33273**	**54583**	**35088**	**50042**
WEST BENGAL					
1. Gas Turbines	304	50	47	47	81
2. DPS's 6th Unit	868	691	600	600	30
3. Replacement of Southern Generating Stations (CESC)	—	—	700	700	800
4. Kolaghat TPS-I.	3325	1662	1300	1300	1500
5. Rammam St. II.	802	807	800	1050	800
6. Kolaghat TPS ST. II	7202	4672	6000	6200	13337
7. Aug. of Kurseong St. II	19	53	93	93	50
8. Rinchington Aug.	21	22	53	19	26
9. Teesta Canal HEP St. I to IV	40	135	990	990	1250
10. Barkeshwar TPS.	—	24	2720	200	500
11. Micro Hydels	—	—	25	25	25
12. Others	608	226	37	41	..
Total	**13189**	**8342**	**13365**	**11265**	**18399**
ANDAMAN AND NICOBAR ISLANDS					
1. Augmentation of D.G. Capaicity at Rangat Bay PH and electrifiction of all the villages in Middle Andaman and long Island	54.35	157.41	75	75	60.00
2. Augmentation of D.G. capacity at Port Blair by 10/12 MW	1.65	13.50	457	457	1175.00
3. Augmentation of D.G. capacity and electrification of all villages in Kamorta Islands (3×300 KVA)	2.22	7.50	15	15	10.00
4. Establishment of HEP at Kalpong river North Andaman (3×1.75 MW)	—	0.31	3	3	1.00
5. Augmentation of D.G. capacity at Carnicobar,	6.50	5.00	70	70	60.00
6. Augmentation of D.G. capacity at Great Nicobar	10.16	—	48	48	50.00
7. Augmentation of D.G. capacity and electrification of all villages at little Andaman (5×250 KVA)	10.60	13.00	20	20	50.00
8. Augmentation of D.G. capacity at Kutchal Islands	2.50	5.00	25	25	10.00
9. Augmentation of D.G. capacity at North Andaman	20.85	17.00	13	13	45.60
10. Augmentation of D.G. capacity at Champion at Nancowry	—	—	5	5	15.00
11. Establishment of PH at Teressa (3×50 KW)	0.10	6.00	5	4	7.00

Annexure 7.8 contd

(Rs. lakhs)

Name of the scheme (Capacity in MW)	1985-86	1986-87	1987-88		1988-89
	Actual	Actual	Approved	Anticipated	Approved
12. Augmentation of DG capacity at Phoenix by PH 2x 1000 KVA	..	23.4	14	14	5.00
13. Establishment of PH at Rutland	..	6.00	..	..	5.00
14. Others	47.28	42.08	96	96	180
Total	156.21	**299.20**	**846**	**846**	**1673**
DELHI					
D.E.S.U.					
a- New Schemes					
1. Gas Turbine (6x30)	5566	2884	134	134	300
2. Rajghat (2*67.5)	1986	6695	7000	7000	4500
Sub Total (a)	**7552**	**9579**	**7134**	**7134**	**4806**
b. New schemes proposed for special Central Assistance					
1. Waste Heat Recovery Units (3×26.75)					500
Sub Total (b)					500
Total	**7552**	**9579**	**7134**	**7134**	**5300**
N.E.C.					
1. Kopili HEP (2×25×2×50 MW)	2100	2500	1150	2500	700
2. Doyang HEP (3x35 MW)	425	400	1600	500	500
3. Rangandi HEP (3x135 MW)	—	550	2000	850	1500
4. Garo Hills TPS (2x30 MW)	—	—	1	0	1
5. Gas Turbine Baramura 3rd Unit (1x5 MW)—Tripura	—	50	220	100	250
6. New Projects in NRE	—	—	—	—	900
Total	**2525**	**3550**	**4971**	**3950**	**3851**

Annexure 7.9

Schemewise Details of Planwise Outlay & Expenditure For Generation Schemes—Central Sector

(Rs. Crores)

Sl. No. Name of Project/Scheme	EXPENDITURE 1985-86	1986-87	1987-88 R.E.	1988-89 Outlay
Department of Power				
Programme of NTPC				
CONTIUNING SCHEMES				
1. Badarpur TPS (720MW)	3.34	11.25	15.20	5.40
2. Singrauli Stage I (3x200 MW)	4.23	—	—	—
3. Singrauli Stage II (2x200 MW & 2x500 MW)	135.39	115.08	23.60	50.09
4. Korba Stage I (3x200 MW & 1x500 MW)	120.93	77.02	59.80	26.38
5. Korba Stage II (2x500 MW)	77.55	123.49	75.51	43.55
6. Ramagundam Stage I (3x200 MW & 1x500 MW)	77.10	124.16	91.62	57.37
7. Ramagundam Stage II (2x500 MW)	65.51	79.91	110.69	145.52
8. Farakka Stage I (3x200 MW)	103.84	90.12	20.89	30.33
9. Vindhyachal (6x210 MW)	244.57	276.90	244.05	162.66
10. Rihand Stage I (2x500 MW)	251.49	371.16	213.06	130.18
11. Gas Turbines At Kawas (600 MW)	0.78	1.78	56.34	192.59
12. Gas Turbines At Anta (430 MW)	0.33	1.26	42.61	136.11
13. Gas Turbines At Auraiya (600 MW)	—	2.34	52.56	210.00
14. Farakka-II (2x500 MW)	8.65	19.05	72.35	135.06
15. Kahalgaon-I (4x210 MW)	6.48	19.40	38.36	90.38
16. NCTPP-Dadri (4x210 MW)	5.26	7.82	63.75	90.68
Sub-Total	1105.82	1320.74	1182.39	1506.30
NEW SCHEMES				
1. Talcher-I (1000 MW)	0.08	0.31	7.72	73.87
2. Vindhyachal-II (1000 MW)	—	—	0.05	—
3. Rihand-II (1000 MW)	—	—	0.05	30.00
4. Farakka III (500 MW) & Others	—	—	0.10	5.00
5. Chandrapur (1000 MW)	—	—	—	30.00
6. North Karanpura (1000 MW)	—	—	—	—
7. GBCCPP, Dadri	—	—	—	—
8. Yamuna Nagar (2x210 MW)	—	—	—	—
Sub-Total	0.08	0.31	7.92	148.87
Total : NTPC	1105.90	1321.05	1190.31	1655.17
Programme of NHPC				
CONTINUING SCHEMES				
1. Baira Siul (3x60 MW)	0.71	—	—	—
2. Loktak HEP (3x35 MW)	1.96	0.90	0.92	0.50
3. Salal ST-I (3x115 MW)	92.83	62.03	36.35	15.00
4. Chamera (3x180 MW)	108.59	181.28	182.00	190.00
5. Tanakpur (3x40 MW)	34.78	33.18	63.35	60.00
6. Koel Karo (4x172.5 & 1x20 MW)	0.94	0.34	5.00	1.00
7. Dulhasti (3x130 MW)	15.21	8.92	100.00	90.00
Sub-Total	255.02	286.65	337.62	356.50

Annexure 7.9 (Contd.)

(Rs. Crores)

Sl. No.	Name of Project/Scheme	Expenditure 1985-86	Expenditure 1986-87	1987-88 R.E.	1988-89 Outlay
	NEW SCHEMES				
1.	URI (4×120 MW)	—	0.54	10.00	12.00
2.	Ranjit (60 MW)	—	0.85	1.50	5.00
3.	Dhauliganga (4×65 MW)	—	—	1.00	1.00
4.	Salal II (3×115 MW)	—	—	1.00	1.00
5.	Baglihar, Sawalkote, Dhale Shwari	—	0.42	3.50	15.00
6	Chamera II	—	—	1.00	15.00
	Sub—Total	..	1.81	18.00	58.00
	TOTAL : NHPC	255.02	238.46	405.62	414.50
	Misc. Programme of DOP				
	CONTINUING SCHEMES				
	Sub-Total	—	—	—	—
	NEW SCHEMES				
1	Tehri (1000 MW)	—	31.04	69.00	70.00
2	Nathpa Jhakri (6x170MW)	—	—	19.60	50.00
1	Sardar Sarovar Project (CE NTRE's Contr bution)	2.34	—	49.00	22.96
2	Kathalguri Gas Turbine Plant	—	—	3.82	45.00
	Sub-Total	2.34	31.04	132.42	187.95
	TOTAL : Misc Programme of DOP	2.34	31.04	132.42	187.96
	Grand Total of Department of Power	1363.26	1640.55	1728.35	2257.63
	Damodar Valley Corporation				
	CONTINUING SCHEMES				
1	C.T.P.S. Units 4 & 5	..	..	..	..
2	C.T.P.S. Unit 6	..	..	..	..
3	Durgapur TPS Unit-4 (120 MW)	—1.63	1.13	..	..
4	Bokaro 'B' TPS (1×210 MW)	36.56	13.96	12.62	4.84
5	Bokaro 'B' TPS Stage-II (2×2 10 MW)	31.87	21.16	13.28	50.00
6	Panchet Hydel-II (40 MW)	17.32	5.75	6.47	5.00
	Sub-Total	84.12	42.00	32.37	59.84
	NEW SCHEMES				
1	MejlaiTPS (3x210MW)	0.08	35.71	23.52	50.00
2	Gas Turbine at Maithon	..	0.12	32.94	18.41
	Sub-Total	0.08	35.83	56.46	68.41
	Grand-Total : DVCs	84.20	77.83	88.83	128.25
	Department of Atomic Energy				
	CONTINUING SCHEMES				
1	Rajasthan Atomic Power Project-2 (RAPP-2) (220 MW)	3.39	2.11	..	..
2	Madras Atomic Power Project-1 (235 MW)	2.26	0.25	0.01	..
3	Madras Atomic Power Project-2 (235 MW)	13.22	2.97	4.29	..
4	Narora Atomic Power Project-1 & 2 (2×235 MW)	45.81	63.73	60.91	33.00
5	Kakarpar Atomic Power Project-1 & 2 (2×235 MW)	64.19	75.69	128.16	135.00
	Sub-Total	128.87	144.75	193.37	168.00

Annexure 7.9 (Contd.)

(Rs. Crores)

Sl. No.	Name of Project/Scheme	Expenditure		1987-88	1988-89
		1985-86	1986-87	R.E.	Outlay
NEW SCHEMES					
1	Kaiga 1 & 2 (2×235 MW)	15.33	26.34	35.09	75.00
2	RAPP 3 & 4 (2×235 MW)	14.12	33.33	42.08	90.00
3	8th Project (2×235 MW)	..	..	19.00	20.00
4	9th Project (2×235 MW)	..	..	19.00	20.00
5	500 MW-1 & 2	..	13.31	40.22	..
6	500 MW-3 & 4	..	..	5.00	73.26
7	500 MW-6 & 6	..	..	5.00	..
Sub-Total		**29.45**	**73.18**	**165.39**	**278.26**
Grand Total : DAE		**158.32**	**217.93**	**358.76**	**446.26**
Neyveli Lignite Corporation					
CONTINUING SCHEMES					
1	Second Mine-cut TPS St. I (3×210 MW)	36.41	29.78	36.34	15.00
2	Second Mine-cut TPS ST. II (4×210 MW)	30.99	63.08	61.80	195.00
Sub-Total		**67.40**	**92.86**	**98.14**	**210.00**
NEW SCHEMES					
1.	Neyveli Third TPS (3×500 M W)—U.N.A.P.P.D.	..	..	..	0.10
2	Neyveli First TPS Expn (2×210 MW)—U.N.A.P.P.D.	..	..	..	0.10
3	Additional 210 MW Unit at Second TPS	..	..	..	10.00
4	Power Station at Rajasthan	..	..	..	0.10
Sub-Total		..	..	..	10.30
Grand Total : NLC		**67.40**	**92.86**	**98.14**	**220.30**
Cent. Sect.—Total		**1673.18**	**2029.17**	**2274.08**	**3052.44**

Annexure 7.10

PLANNING COMMISSION (NIC SEID)
(Schemewise details of Planwise Outlay and Expenditure)
ANNUAL PLAN 1988-89

1. SECTOR/SUB-SECTOR.... ENERGY
COAL & LIGNITE — MINING
2. UNDERTAKING.... EASTERN COALFIELDS LTD.
3. MINISTRY/DEPARTMENT.. D/O COAL, M/O ENERGY

(Rs. Crores)

Sl. No.	Name of Project/Scheme	Expenditure		1987-88		1988-89
		1985-86	1986-87	B.E.	R.E	B.E.
	Continuing Schemes					
	UNIT.... REORGANISATION (PRE APRIL 85)					
1	Dhemomain UG	1.29	2.69	14.00	12.40	3.50
2	Amrit Nagar UG	1.86	3.02	2.45	2.57	2.57
3	Kunustoria UG	0.91	1.89	1.90	1.93	2.01
4	Satgram UG	3.28	6.40	3.00	5.29	7.29
5	J.K. Nagar	1.20	1.50	2.12	1.38	2.25
6	Others	10.22	14.56	12.18	12.37	7.43
	UNIT.... New Mines (Pre April 85)					
7	Jhanjra UG	11.31	14.87	16.00	25.84	40.00
8	Rajmahal OCP	19.95	26.24	40.00	26.06	58.00
9	Others	0.44	3.54	4.70	16.30	1.18
	UNIT.... Existing Mines					
10	Existing Mines	65.10	58.11	35.00	39.31	35.00
	UNIT...... Reorganisation (Post April 85)					
11	Others	—	—	1.04	0.47	1.03
	UNIT...... New Mines (Post April 85)					
12	Sonepur Bazari OCP	3.53	4.80	7.60	6.50	10.00
13	Kalidaspur	0.46	1.01	1.13	1.14	2.04
14	Others	—	0.06	0.82	2.46	1.55
	Sub-Total	**119.55**	**138.69**	**141.94**	**154.02**	**173.85**
	New Schemes					
	UNIT...... Projects Yet to be approved					
1	Others	—	—	2.13	0.78	4.94
	UNIT...... Projects Yet to be formulated					
2	Others	—	—	0.15	0.04	0.40
	Sub-Total	—	—	2.28	0.82	5.34
	Grand Total (Mining)	**119.55**	**138.69**	**144.22**	**154.84**	**179.19**
	Continuing Schemes					
	Sub-Total	—	—	—	—	—
	New Schemes					
	UNIT...... Washeries Yet to be approved					
1	Sodepur Washery (Yet to be)	—	—	0.10	—	—
	Sub-Total	—	—	0.10	—	—
	Grand Total (Washery)	—	—	0.10	—	—

Annexure 7.10 (*Contd.*)
(Rs. Crores)

SL. No.	Name of Project/Scheme	Expenditure		1987-88		1988-89
		1985-86	1986-87	B.E.	R.E.	B.E.
	Continuing Schemes					
	Unit......					
1	Exploration/Cmpoil	8.20	10.32	8.00	12.37	13.68
2	Others	5.10	5.25	18.52	14.28	12.14
	Sub-Total	13.30	15.57	26.52	26.65	25.82
	New Schemes					
	Unit......					
1	Other Schemes	4.33	2.00	1.16	3.51	7.70
	Sub-total	4.33	2.00	1.16	3.51	7.70
	Grand Total (Others)	17.63	17.57	27.68	30.16	33.52
	Grand Total (ECL)	137.18	157.26	172.00	185.00*	212.71

*Revised Estimate Rs. 150-00 Crores.

Annexure 7.11

PLANNING COMMISSION (NIC SEID)

(Schemewise details of Planwise outlay & Expenditure)

ANNUAL PLAN 1988-89

1. Sector/Sub-Sector..... Energy
Coal & lingnite-mining
2. Undertaking...... Bharat Coking Coal Ltd.
3. Ministry/Department.. D/O Coal, M/O Energy

(Rs. Cr.)

Sl. No.	Name of Project/Scheme	Expenditure		1987-88		1988-89
		1985-86	1986-87	B.E.	R.E.	B.E.
	Continuing Schemes					
	Unit...... Reorganisation (Pre April 85)					
1	Katras UG	0.58	1.03	7.00	3.10	32.00
2	Bhagaband XVII B	0.02	0.22	—	—	—
3	North Amlabad UG	1.64	2.49	2.00	2.00	7.00
4	Bhalgora UG	3.50	2.95	3.00	3.00	3.50
5	Others	0.58	4.51	2.47	2.47	6.26
	Unit...... New Mines (Pre April 85)					
6	Moonidih UG	11.76	14.45	10.00	9.00	5.00
7	Pootkee-Ballihari UG	7.59	12.62	15.00	15.00	10.00
8	Block II OCP	8.08	7.10	25.00	42.56	22.40
9	Others	12.22	13.55	3.62	7.85	2.94
	Unit...... Existing Mines					
10	Existing Mines	82.43	52.63	35.00	35.67	35.00
	Unit...... Reorganisation (Post April 85)					
11	Lodna Patch OC	—	0.67	—	—	2.00
12	Others	0.58	2.68	3.79	20.79	9.58
	Sub-Total	128.98	114.90	106.88	141.44	135.68
	New Schemes					
	Unit...... Projects yet to be approved					
1	Others	—	—	0.10	0.10	—
	Unit...... Projects yet to be formulated					
1	Others	—	—	5.50	—	—
	Sub-Total	—	—	5.60	0.10	—
	Ground Total (Mining)	128.98	114.90	112.48	141.54	135.68
	Continuing Schemes					
	Unit—New Washeries (Pre April 85)					
1.	Mohuda Washery	0.82	0.62	0.10	0.40	0.85
2.	Madhuband Washery	7.36	2.79	14.00	13.70	12.75
	Unit—Reorganisation (Post April 85)					
3.	Modernisation of Bhojudih . . .	—	—	—	—	1.50
	Unit—New Washeries (Post April 85)					
4.	Pootkee	—	—	0.10	0.10	5.24
	Unit—Existing Washeries					
5.	Existing Washeries	[illegible].79	3.07	2.50	2.50	3.51
	Sub-Total	12.97	6.48	16.70	16.70	23.85

Annexure 7.11 (*Contd.*)

(Rs. Crores)

Sl. No. Name of Project/Scheme	Expenditure		1987-88		1988-89
	1985-86	1986-87	B.E.	R.E.	B.E.
New Schemes					
Unit – Washeries yet to be approved					
1. Others	0.03	—	0.10	0.10	1.00
Sub-Total	**0.03**	—	**0.10**	**0.10**	**1.00**
Grand Total (Washery)	**13.00**	**6.48**	**16.80**	**16.80**	**24.85**
Continuing Schemes					
Unit					
1. Exploration/CMPDIL	8.47	15.84	7.75	11.44	8.72
2. Others	16.16	33.11	14.45	19.90	5.67
Sub-Total	**24.63**	**48.95**	**22.20**	**31.34**	**14.39**
New Schemes					
Unit......					
1. Other Non-Mining Schemes	—	—	0.52	0.62	3.27
Sub-Total	—	—	**0.52**	**0.62**	**3.27**
Grand Total (Others)	**24.63**	**48.95**	**22.72**	**31.96**	**17.66**
Grand Total (BCCL)	**166.61**	**170.33**	**152.00**	**190.30***	**178.19**

*Revised to Rs. 185.00 crores

PLANNING COMMISSION (NIC SEID)
(Schemewise details of Planwise outlay & Expenditure)
Annual Plan 1988-89

1. Sector/Sub-Sector....Energy

Coal & Lignite—Mining

2. Undertaking....Central Coalfields Ltd.
3. Ministry/Department....D/o Coal, M/o Energy

(Rs. Crores)

Sl. No. Name of Project/Scheme	Expenditure		1987-88		1988-89
	1985-86	1986-87	B.E.	R.E.	B.E.
1	2	3	4	5	6
Continuing Schemes					
Unit....Reorganisation (Pre April 85)					
1. Churi UG Reorg.	0.66	0.83	2.00	2.44	2.10
2. Selected Dhori (Kalyani)	3.13	8.06	3.50	6.52	3.18
3. Others	16.38	13.67	5.37	9.12	3.21
Unit....New Mines (Pre April 85)					
4. Karkatta OCP	5.49	5.56	4.65	4.98	4.12
5. Rajrappa OC	6.00	8.90	4.48	6.45	12.00
6. AMLO (Dhori West) OC	1.62	4.76	4.45	4.89	4.00
7. Others	4.14	7.70	5.27	4.98	1.13
Unit....Existing Mines					
8. Existing Mines	41.25	33.43	22.00	28.37	28.70
Unit....Reorganisation (Post April 85)					
9. Pipradih OC RO.	—	0.94	4.00	2.83	2.20
10. Others	2.08	9.91	7.23	6.69	2.80
Unit....New Mines (Post April 85)					
11. Others	0.18	0.46	6.50	2.27	4.00
Sub-Total	**80.93**	**94.22**	**69.45**	**79.54**	**67.44**
New Schemes					
Unit....Projects yet to be approved					
1. K.D. Expansion	—	—	0.20		4.00
2. Piparwar OC	—	—	—	—	5.25
3. Others	—	—	0.93	0.03	3.00
Unit....Projects yet to be formulated					
4. Projects to be formulated	—	—	1.37	0.01	2.70
Sub-Total	—	—	**2.50**	**0.04**	**14.95**
Grand Total (Mining)	**80.93**	**94.22**	**71.95**	**79.58**	**82.39**

Annexure 7.12 (*Contd.*)

(Rs. Crores)

Sl. No.	Name of Project/Scheme	Expenditure		1987-88		1988-89
		1985-86	1986-87	B.E.	R.E.	B.E.
	Continuing Schemes					
	Unit....New Washeries (Pre April 85)					
1.	Kedla Washery	5.01	4.41	4.70	5.62	6.85
2.	Others	8.68	2.32	3.00	1.58	3.00
	Unit....Existing Washeries					
3.	Existing Washeries	2.85	1.63	0.66	0.97	1.53
	Unit....Reorganisation (Post April 85)					
4.	Others	0.25	0.85	0.50	0.41	0.12
	Sub-Total	16.79	9.21	8.86	8.58	11.50
	New Schemes					
	Unit....Washeries yet to be approved					
1.	Others	–	–	–	–	0.50
	Sub-Total	—	—	—	—	0.50
	Grand Total (Washery)	16.79	9.21	8.86	8.58	12.00
	Continuing Schemes					
	Unit....					
1.	Exploration	6.41	4.49	4.00	6.78	8.36
2.	Others	10.96	10.13	10.60	22.22	7.39
	Sub-Total	17.37	14.62	14.60	29.00	15.75
	New Schemes					
	Unit....					
1.	Other Schemes (New)	—	–	1.59	4.84	12.06
	Sub-Total	—	–	1.59	4.84	12.06
	Grand Toal (Others)	17.37	14.62	16.19	33.84	27.81
	Grand Total (CCL)	115.09	118.05	97.00	122.00*	122.20

*Revised Estimate Rs. 91.00 crores.

Annexure 7.13

PLANNING COMMISSION (NIC SEID)

(Schemewise Details of Planwise Outlay & Expenditure)

Annual Plan 1988-89

1. Sector/Sub-Sector — Energy
Coal & Lignite—Mining
2. Undertaking — Northern Coalfields Ltd.
3. Ministry/Department — D/o Coal, M/o Energy

(Rs. Crores)

Sl. No.	Name of Project/Scheme	Expenditure		1987-88		1988-89
		1985-86	1986-87	B.E.	R.E.	B.E.
	Continuing Schemes					
	Unit....Reorganisation (Pre April 85)					
1.	Jhingurdah OCP	1.57	4.42	11.42	—	—
	Unit....New Mines (Pre April 85)					
2.	Bina OC (RPR)	10.14	20.45	16.90	20.00	25 00
3.	Jayant OC (RPR)	14.37	45.30	44.50	44.43	50.00
4.	Amlori OCP	26.03	29.36	60.00	109.00	33.00
5.	Kakri OCP	3.11	6.46	14.78	11.59	15.00
6.	Dudhichua OCP	26.65	44.19	39.99	36.20	79.00
7.	Negahi OC	1.79	4.07	20.00	8.25	45.00
	Unit....Existing Mines					
8.	Existing Mines	3.90	2.42	8.78	5.25	5.00
	Unit....Reorganisation (Post April 85)					
9.	Gorbi Expansion	—	—	—	4.62	10.00
	Unit....New Mines (Post April 85)					
10.	Khadia OCP	4.63	10.83	39.10	47.96	65.00
	Sub-Total	**92.19**	**167.50**	**254.97**	**287.30**	**327.00**
	New Schemes					
	Unit....Projects yet to be formulated					
1.	Gorbi Block 'B'	—	—	—	1.00	5.00
2.	Others	—	0.18	—	—	—
	Sub-Total	—	**0.18**	—	**1.00**	**5.00**
	Grand Total (Mining)	**92.19**	**167.68**	**254.97**	**288.30**	**332.00**
	Continuing Schemes					
	Unit....					
1.	Explorstion/CMPDIL	—	3.88	2.37	2.37	2.60
2.	Others	8.37	15.03	16.41	18.08	5.51
	Sub-Total	8.37	18.91	18.78	20.45	8.11
	New Schemes					
	Unit....					
1.	Others Schemes (New)	—	—	6.25	3.73	6.34
	Sub—Total	—	—	**6.25**	**3.73**	**6.34**
	Grand Total (Others)	**8.37**	**18.91**	**25.03**	**24.18**	**14.45**
	Grand Total (NCL)	**100.56**	**186.59**	**280.00**	**312.48***	**346.45**

*Revised Estimate Rs. 230.00 crores.

Annexure 7.14

PLANNING COMMISSION (NIC SEID)

(Schemewise Details of Planwise Outlay & Expenditure)

Annual Plan 1988-89

1. Sector/Sub-Sector.... Energy
Coal & Lignite—Mining
2. Undertaking.... Western Coalfield Ltd.
3. Ministry/Department.... D/o Coal, M/o Energy

(Rs. Crores)

Sl. No.	Name of Project/Scheme	Expenditure		1987-88		1988-89
		1985-86	1986-87	B.F.	R.E.	B.F.
	Continuing Schemes					
	Unit....Reorganisation (Pre April 85)					
1.	Nandan UG	2.52	1.85	1.74	1.52	2.00
2.	Others	17.61	10.55	3.27	2.55	2.46
	Unit....New Mines (Pre April 85)					
3.	Sasti	5.34	6.83	3.02	3.22	4.00
5.	Padampur OC	11.06	10.65	7.27	5.89	5.00
5.	Ghugus	14.02	8.70	6.09	6.66	11.00
6.	Silwara Ph-II	3.53	4.61	1.86	1.94	3.00
7.	Saoner	2.36	2.49	2.08	2.89	3.09
8.	Others	16.81	4.61	2.38	0.05	0.05
	Unit....Existing Mines					
9.	Existing Mines	32.86	24.62	16.92	19.14	18.00
	Unit....Reorganisation (Post April 85)					
10.	Group of 21 Schemes	—	1.39	—	0.81	—
	Unit....New Mines (Post April 85)					
11.	Tandsi UG	0.03	1.07	1.85	1.94	3.45
12.	Niljai	—	6.28	10.20	5.33	18.14
13.	Gouri	—	—	0.15	0.19	9.00
14.	Kawadi	—	—	0.10	0.20	10.00
15.	Others	3.07	25.22	23.16	22.12	5.96
	Sub-Total	**109.21**	**108.87**	**80.09**	**74.45**	**95.15**
	New Schemes					
	Unit....Projects yet to be approved					
1.	Durgapur OC Expn.	—	—	—	—	13.95
2.	Others	—	—	0.44	18.08	12.20
	Unit....Projectes yet to be formulated					
3.	Others	—	—	1.07	0.23	—
	Sub-Total	—	—	**1.51**	**18.31**	**26.15**
	Grand Total (Mining)	**109.21**	**108.87**	**81.60**	**92.76**	**121.30**

Annexure 7.14 (*Contd.*)
(Rs. Crores)

Sl. No.	Name of Project/Scheme	Expenditure		1987-88		1988-89
		1985-86	1986-87	B.E.	R.E.	B.E.
	Continuing Schemes					
	Unit....	0.62	0.58	0.11	0.46	0.16
	Sub-Total	**0.62**	**0.58**	**0.11**	**0.46**	**0.16**
	New Schemes					
	Unit....					
1.	Others	—	—	—	—	0.05
	Sub-Total	—	—	—	—	**0.05**
	Grand Total (Washery)	**0.62**	**0.58**	**0.11**	**0.46**	**0.21**
	Continuing Schemes					
	Unit....					
1.	Exploration/CMPDIL	8.59	6.68	5.56	7.04	8.21
2.	Others	6.19	5.86	9.39	7.60	7.71
	Sub-Total	**14.78**	**12.54**	**14.95**	**14.64**	**15.92**
	New Schemes					
	Unit....					
1.	Other Schemes (New)	—	—	0.34	1.96	5.38
	Sub-Total	—	—	**0.34**	**1.96**	**5.38**
	Grand Total (Othes)	**14.78**	**12.54**	**15.29**	**16.60**	**21.30**
	Grand Total (ECL)	**124.61**	**121.99**	**97.00**	**109.82***	**142.81**

*Revised to Rs. 90.00 Crores.

Annexure 7.15

PLANNING COMMISSION (NIC SEID)

(Schemewise details of Planwise Outlay & Expenditure)

ANNUAL PLAN 1988-89

1. Sector/Sub-Sector	Energy Coal & Lignite—Mining
2. Undertaking	South Eastern Coalfields Ltd.
3. Ministry/Department	D/o Coal, M/D Energy

(Rs. Crores)

Sl. No.	Name of Project/Scheme	Expenditure 1985-86	Expenditure 1986-87	1987-88 B.E.	1987-88 R.E.	1988-89 B.E.
	Continuing Schemes					
	UNIT—Reorganisation (Pre April 85)					
1	Rajgamau UG	3.11	1.79	0.50	0.53	2.00
2	Jamuna UG	1.16	1.06	1.36	1.32	2.00
3	Ramnagar UG (RCE)	0.73	1.08	0.50	0.66	2.86
4	Rajnagar UG	2.79	2.73	1.90	1.90	2.00
5	Others	14.05	1.91	4.35	1.71	2.02
	UNIT—New Mines (Pre April 85)					
6	Lajkura OC	1.66	6.27	5.00	6.33	5.46
7	Belpahar OC	6.58	5.43	10.00	10.90	6.25
8	Bharatpur	2.07	7.70	15.00	20.45	24.46
9	Churcha West	0.33	3.67	3.02	2.99	5.81
10	Balgi OC	2.10	3.43	1.50	1.84	4.19
11	Pali UG	0.87	2.01	1.50	1.74	2.00
12	Dhanpuri OC	2.34	7.95	3.00	3.50	3.44
13	Amlai OC	6.99	2.46	2.50	2.74	4.76
14	Gevra OC	23.44	16.07	40.00	41.96	50.00
15	Others	23.10	1.68	12.61	1.72	0.76
	UNIT—Existing Mines					
16	Exixting Mines	..	82.21	23.00	43.38	50.00
	UNIT—Reorganisaton (Post April 85)					
17	Others	..	1.48	11.64	15.18	18.00
	UNIT—New Mines (Post April 85)					
18	Dipka OC	6.64	11.97	9.50	8.31	7.88
19	Bangwar UG	..	0.57	1.30	0.71	3.44
20	Other	..	..	2.65	1.69	3.44
	Sub-Total	97.96	161.47	150.83	170.06	200.77
	New Schemes					
	UNIT—Project Yet to be Approved					
1	Somleshwari	..	..	0.80	0.80	4.26
2	Others	..	2.13	4.66	17.60	2.65
	UOIT—Projects Yet to be Formulated					
3	Others	..	..	4.09	26.30	14.70
	Sub-Total	..	2.13	9.55	44.70	21.61
	Grand-Total (Mining)	97.96	163.60	160.38	214.76	222.38

Annexure 7.15 (*Contd.*)

(Rs. Crores)

Sl. No.	Name of Project/Scheme	Expenditure		1987-88		1988-89
		1985-86	1986-87	B.E.	R.E.	B.E.
	CONTINUING SCHEMES					
	UNIT—					
1	Exploration	..	8.47	9.00	11.46	13.88
2	Others	7.61	10.67	5.97	22.87	25.62
	Sub-Total	**7.61**	**19.14**	**14.97**	**34.33**	**39.**
	NEW SCHEMES					
	UNIT—					
1	Other Schemes (New)	..	..	9.65	..	10.72
	Sub-Total	..	..	9.65	..	**10.72**
	GRAND TOTAL (Others)	7.61	19.14	24.62	34.33	50.22
	GRAND TOTAL (SECL)	105.57	182.74	185.00	249.09*	272.60

*Revised Estimate Rs. 175.00 (Crores)

Annexure 7.16

PLANNING COMMISSION (NIC SEID

(Schemewise Details of Planwise Outlay & Expenditure)

ANNUAL PLAN 1988-89

1. Sector/Sub-Sector— Energy
Coal & Lignite—Mining
2. Undertaking— North Eastern Coalfields Ltd.
3. Ministry/Deparmetnt— D/O Coal, M/O Energy

(Rs. Crores)

Sl. No.	Name of Project/Scheme	Expenditure 1985-86	Expenditure 1986-87	1987-88 B.E.	1987-88 R.E.	1988-89 B.E.
	Continuing Schemes					
	Unit......Existing Mines					
1	Existing Mines	5.12	4.07	3.03	3.22	3.39
	Sub-Total	5.12	4.07	3.03	3.22	3.39
	New Schemes					
	Unit...Projects yet to be Approved					
1	Simsong UG	..	..	..	..	0.20
2	Others	0.44	0.18	1.01	0.18	..
	Unit...Projects yet to be Formulated					
3	Others	0.04	..	0.50	0.37	0.12
	Sub-Total	0.48	0.18	1.51	0.55	0.32
	Grand Total (Mining)	5.60	4.25	4.54	3.77	3.71
	Continuing Schemes					
	Unit......					
1.	Ledo Washery	—	0.02	0.70	0.10	—
	Sub-Total	—	0.02	0.70	0.10	—
	New Schemes					
	Sub-Total	—	—	—	—	—
	Grand Total (Washery)	—	0.02	0.70	0.10	—
	Continuing Schemes					
	Unit......					
1.	Exploration		—	1.51	1.10	1.12
2.	Others	0.97	1 32	3 25	0.98	0.81
	Sub-Total	0.97	1.32	4.76	2.08	1.93
	New Schemes					
	Unit......					
1.	Other Schemes (New)	—	—	—	0.55	1.40
	Sub-Total	—	—	—	0.55	1.40
	Grand Total (Others)	0.97	1.32	4.76	2.63	3.33
	Grand Total (NEC)	6.57	5.59	10.00	6.50*	7.04

*Revised Estimate Rs. 5.00 Crores.

PLANNING COMMISSION (NIC SEID)

(Schemewise Details of Plan-wise Outlay & Expenditure)

Annual Plan 1988-89

1. Sector/Sub-Sector — Energy
   Coal & Lignite—Mining
2. Undertaking — Singareni Collieries Ltd.
3. Ministry/Department — D/o Coal, M/o Energy

(Rs. Crores)

Sl. No.	Name of Project/Scheme	Expenditure		1987-88		1988-89
		1985-86	1986-87	B.E.	R.E.	B.E.
	Continuing Schemes					
	Unit......Reorganisation (Pre April 85)					
1.	Venkatesh Khani-7	1.66	2.84	1.37	—	—
	Unit......New Mines (Pre April 85)					
2.	Ramagundam OC-I	16.90	9.43	1.92	6.21	3.33
3.	Sarangpalli I & 1A (Indram)	0.35	1.03	2.28	1.57	3.03
4.	Godavari Khani-11A	2.30	4.68	10.00	4.49	5.28
5.	Jawahar Khani-5	1.21	5.53	15.80	5.12	18.63
6.	Manuguru OC-II	4.06	25.34	29.00	28.07	29.58
7.	Others	16.88	9.86	14.13	3.21	1.55
	Unit......Existing Mines					
8.	Existing Mines	24.68	25.79	12.98	31.20	33.85
	Unit......Reorganisation (Post April 85)					
9.	Godavari Khani 8 Inc.	—	—	—	—	1.97
	Unit......New Mines (Post April 85)					
10.	Godavari Khani-10A	0.35	1.30	1.92	1.03	1.97
11.	Srirampur-3 & 3A	0.12	0.79	1.60	1.54	2.88
12.	Ravindra Khani-1A	1.03	0.73	2.70	1.88	3.00
13.	Ramagundam OC-II	1.98	4.31	10.00	4.16	2.89
14.	Yellandu OC-I Block-'BB	—	—	—	8.34	7.25
15.	GDK-10 Thick Seam	—	0.05	—	1.40	6.33
16.	Bellampalli OC-II	—	—	—	5.40	5.34
17.	Others	—	—	0.10	—	1.40
	Sub-Total	**71.52**	**91.68**	**103.80**	**103.62**	**128.28**
	NEW SCHEMES					
	UNIT...Projects yet to be approved					
1.	Ravindrakhani 7A	0.19	0.49	1.05	1.06	2.50
2.	Ramagundam OC-III	..	..	3.00	..	3.00
3.	Others	..	..	1.10	..	0.20
	UNIT : Projects yet to be formulated					
4.	Others	..	..	2.04	..	1.40
	Sub-Total	**0.19**	**0.49**	**7.19**	**1.06**	**7.10**
	GRAND TOTAL (Mining)	**71.71**	**92.17**	**110.99**	**104.68**	**135.38**

Annexure 7.17 (*Contd.*)

(Rs. Crores)

Sl. No.	Name of Project/Scheme	Expenditure 1985-86	Expenditure 1986-87	1987-88 B.E.	1987-88 R.E.	1988-89 B.E.
	Continuing Schemes					
	UNIT......					
1.	Exploration	2.83	5.46	4.50	7.30	8.60
2.	Others	3.94	4.19	8.66	12.92	11.02
	Sub-Total	**6.77**	**9.65**	**13.16**	**20.22**	**19.62**
	New Schemes					
	UNIT.....					
1.	Other Schemes (New)	..	..	0.85	0.10	..
	Sub-Total	..	..	**0.85**	**0.10**	..
	Grand Total (Others)	**6.77**	**9.65**	**14.01**	**20.32**	**19.62**
	Grand Total (SCCL)	**78.48**	**101.82**	**125.00***	**125.00****	**155.00***

*Includes State Govt. Contribution Rs. 10.00 crores.

**Revised Central sector outlay Rs 100.00 crores.

xure 7.20

PLANNING COMMISSION (NIC SFID)
(Schemewise details of Planwise Outlay & Expenditure)
ANNUAL PLAN 1988-39

1. Sector/Sub-Sector	Energy Coal & Lignite-Mining
2. Undertaking	Neyvele Lignite Corp. Ltd.
3. Ministry/Department	D/o Coal, M/o Energy

(Rs. Crores)

Sl. No. Name of Project/Scheme	Expenditure		1987-88		1988-89 B.E.
	1985-86	1986-87	B.E.	R.E.	
Continuing Schemes					
UNIT					
1. Second mine expansion	42.41	95.23	165.00	200.00	250.00
2. Diversion of Rly. line for	..	..	..	0.11	4.00
3. Others	31.76	44.21	9.88	22.56	1.50
Unit : Exploration					
4. Geological investigation	0.63	1.79	1.75	1.75	1.80
5. Lignite Exploration at Rajasthan	2.44	4.46	3.00	3.78	2.50
6. Lignite Exploration at J & K	..	..	..	..	..
UNIT : Other Schemes					
7. Science & Technology	..	..	0.27	0.35	..
Sub-Total	77.24	145.69	179.90	228.55	259.80
New Schemes					
UNIT:					
1. Mine I expansion	0.06	..	0.05	..	3.00
2. Mine at Rajasthan	..	..	..	1.20	2.00
3. Others	0.36	..	0.05	0.10	0.20
Sub-Total	0.42	..	0.10	1.30	5.20
Grand Total (NLC)	77.66	145.69	180.00	229.85*	265.00

*Revised Estimate Rs. 212.97 crores.

Annexure 7.19

Crude Oil Production

(Million tonnes)

	1987-88		1988-89
	Target	Achievement	Target
1	2	3	4
1. ONGC			
(I) Onland			
(a) Cambay Basin .	4.90	4.99	5.50
(b) Upper Assam .	2.80	2.75	2.90
Sub-Total (1) . .	7.70	7.74	8.40
(II) Offshore	19.92	20.16	20.88
Total : ONGC . . .	27.62	27.90	29.28
2. OIL	2.84	2.45	2.90
Total	30.46	30.35	32.18

Annexure **7.20**

Refining Capacity and Crude Throughput

(Million Tonnes)

Sl. No.	Organisation/Refinery	Installed Capacity			Crude Throughput			
		1986-87 Actual	1987-88 Actual	1988-89 Target	1986-87 Actual	1987-88		1988-89
						Target	Achievement	Target
1	2	3	4	5	6	7	8	9
1.	IOC, Gauhati	0.85	0.85	0.85	0.80	0.83	0.81	0.80
2.	IOC, Barauni	3.30	3.30	3.30	2.86	3.23	2.64	3.10
3.	IOC, Gujarat	7.30	8.10	8.10**	7.83	7.85	8.44	8.30
4.	IOC, Haldia	2.50	2.50	2.50	2.62	2.56	2.81	2.63
5.	IOC, Mathura	6.00	6.00	6.00	6.35	5.77	6.35	6.55
6.	IOC, Digboi	0.50	0.50	0.50	0.55	0.55	0.55	0.53
7.	HPCL, Bombay	5.50*	5.50	5.50*	5.01	5.36	5.45	5.50
8.	HPCL, Vishakhapatnam	4.50	4.50	4.50	3.72	3.90	3.61	4.20
9.	BPCL, Bombay	6.00	6.00	6.00***	6.39	6.50	5.58	6.11
10.	MRL, Madras	5.60	5.60	5.60	5.19	5.40	5.19	5.40
11.	CRL, Cochin	4.50	4.50	4.50	4.17	3.93	4.11	4.50
12.	BRPL, Bongaigaon	1.00	1.35	1.35	1.01	1.10	1.11	1.29
	Total	47.55	48.70	48.70	45.69	46.95	46.65	48.90

*Includes 2.00 million tonnes of Swing refinery.

**Capacity will increase to 9.50 MMTPA from Oct'88.

***Capacity will increase to 7.50 MMTPA from Oct' 88.

Annexure 7.21

Organisation-wise Plan Outlay Annual Plan 1988-89

(Rs. Crores)

Sl. No.	Organisation	1986-87 (Actual)	1987-88		1988-89 Plan Outlay
			Plan Outlay	Revised Estimates	
1	2	3	4	5	6
A.	**Exploration and Production**				
1.	ONGC	2214.02	2056.26	2056.26	2350.00
2.	OIL	191.13	210.10	195.00	225.00
3.	GAIL	592.96	550.00	670.24	270.00
	Sub-Total A	**2998.11**	**2816.36**	**2921.50**	**2845.00**
B.	**Refining and Marketing**				
4.	IOC	112.14	177.08	150.92	249.68
5.	HPCL	81.93	75.76	65.33	81.94
6.	BPCL	88.76	99.16	99.17	97.57
7.	MRL	16.62	9.85	23.66	8.32
8.	CRL	10.78	10.00	8.75	10.53
9.	BRPL	0.01	0.10	0.05	0.10
10.	LIL	2.87	3.72	3.63	4.86
11.	EIL	4.07	7.97	12.61	4.00
	Sub-Total B	**317.18**	**333.64**	**363.72**	**457.00**
C.	**Ministry of Petroleum and Natural Gas**	11.12		52.97	25.00
	Grand Total	**3326.41**	**3200.00**	**3338.19**	**3327.00**

Annexure 7.22

Scheme-wise Outlay for Petroleum Sector

(Rs. Crores)

Sl. No.	Name of Scheme	1986-87 Actuals	1987-88 Approved Outlay	1987-88 Revised Estimates	1988-89 Plan Outlay
1	2	3	4	5	6
I. EXPLORATION, PRODUCTION AND TRANSPORTATION OF OIL AND NATURAL GAS					
A. Oil & Natural Gas Commission (ONGC)					
Continuing Scheme					
(i)	Surveys	104.38	99.45	126.55	127.73
(ii)	Exploratory Drilling	458.99	615.21	577.48	665.49
(iii)	Development Drilling	265.87	352.02	291.28	358.57
(iv)	Accelerated Plan of Production for Bombay Offshore	243.00	66.42	41.54	15.18
(v)	South Bassein Development phase II	13.41	87.73	102.59	77.46
(vi)	Additional Oil recovery Project for Bombay High South	43.48	173.99	232.88	141.41
(vii)	Ethane/Propane recovery Plant Uran	4.68	13.29	12.30	30.00
(viii)	Workover jack-up Rigs 2 nos. (Sagar-Kiran & Sagar Uday)	0.07	20.90	13.05	15.90
(ix)	LPG Recovery Project at Kawas Hazira	5.79	1.24	17.28	15.29
(x)	Gas sweetening Plant	131.74	73.31	86.23	14.20
(xi)	Gas sweetening Plant Phase II	29.19	62.28	46.29	47.68
(xii)	Acquisition of 22 Nos. exploratory rigs	97.64	24.99	31.23	14.42
(xiii)	Acquisition of development rigs	16.03	12.35	7.79	12.43
(xiv)	Additional Oil recovery from Bombay H. North	20.00	45.00	40.00	45.01
(xv)	Cambay Petroleum Projects	28.98	20.02	4.70	79.71
(xvi)	R & D including institutes	36.50	50.00	75.53	66.75
(xvii)	Intensive Integrated development Programme Expl. Business group	...	20.00	65.00	50.00
(xviii)	Other Schemes	714.27	418.06	435.48	343.97
	Sub-Total	**2214.02**	**2156.26**	**2207.20**	**2121.20**
New Schemes					
(i)	Gandhar Development Phase I.	...	...	8.94	28.69
(ii)	Heera Development Ph. II	...	...	..	100.00
(iii)	Gas Lift Project for Bombay High Field	..	..	..	50.00
(iv)	Panna Development, Ph. II	...	...	...	15.00
(v)	B. 131 Development	...	...	...	7.00
(vi)	B. 57 Development	...	...	...	8.00
(vii)	BH-22 Development	...	...	...	8.00
(viii)	Western Offshore Integrated Dev. Project (WOIDP)	...	...	...	11.37
(ix)	Other Schemes	...	...	0.10	0.74
	Sub-Total	...	...	9.04	228.80
	Grand Total	**2214.02**	**2156.26***	**2216.24***	**2350.00**

*Restricted to Rs. 2056.26 crores.

Annexure 7.22 (Contd.)

(Rs. Crores)

1	2	3	4	5	6
B. Oil India Ltd. (OIL)					
I. Onland					
(a) Assam & Arunachal Pradesh					
	(i) Jorajan Development	3.41	0.10	0.73	0 02
	(ii) Waste Heat Recovery Plant	3.23	8 03	8 00	2.59
	(iii) Other Back-up equipment and facilities	61.72	76.91	75 48	97.45
	(iv) Drilling & Survey	48.60	67.88	68.92	86 03
	Sub-Total (a)	**116.95**	**152.92**	**153.13**	**185.10**
	(b) Rajasthan Project	1.90	14.41	6.63	22.25
	(c) Other Schemes	9.40	10.13	7 02	1.98
	Sub-Total	**128.35**	**177.46**	**166.78**	**210.33**
II. Offshore					
	(i) N.E. Coast	21.97	28.71	23.69	14.67
	(ii) Andaman	40.81	3.93	4.53	...
	Sub-Total	**62.78**	**32.64**	**28.22**	**14.67**
	Total (I+II) (OIL)	**191.13**	**210.10**	**195 00**	**225.00**
C. Gas Authority of India Ltd. (GAIL)					
Continuing Schemes					
	(i) H.B.J. Pipeline Project	592.95	549.00	634.60	175.10
	(ii) LPG Plant at Bijarpur	—	0.50	5.00	15.00
	(iii) Babrala—Faridabad spur line	—	—	20.59	55.45
	(iv) Vagodia Spur Pipeline	—	0.50	3.65	12.85
	(v) Other Schemes	—	—	6.40	11.60
	Total (GAIL)	**592.95**	**550.00**	**670.24**	**270 00**
2. Refining and Marketing					
A. Indian Oil Corporation Ltd. (IOC)					
	(i) Gujarat Refinery AU-I Revamping	1.01	4.75	4.25	3.04
	(ii) Gujarat Refinery AU-II Revamping	1.12	5.00	4.50	3.43
	(iii) Gujarat Refinery Additional Secondary Processing Facilities	4.72	20.00	20.00	89.84
	(iv) Modification of Salaya-Mathura Pipeline for handling B.H. Crude	4.16	12.00	12.00	2.07
	(v) LPG Marketing facilities Phase-III	35.73	60.00	45.00	35.00
	(vi) Office & Residential accommodation	11.16	10.00	10.00	10.00
	(vii) LPG Marketing facilities Phase-IV	—	6.00	6.00	6.00
	(viii) R & D Centre-Phase II & Other schemes	6.12	10.00	8.00	10.00
	(ix) Other schemes	43.1	49.33	41.17	90.30
	Total (IOC)	**112.14**	**177.08**	**150.92**	**249.68**
B. Hindustan Petroleum Corporation Ltd. (HPCL)					
	(i) Captive power, plant, Bomabay	3.37	15.00	10.00	27.00
	(ii) Mangalore Refinery	—	10.00	0.75	10.00
	(iii) Captive power plant at Visakh	—	5.00	0.30	4.00